Final Exam Review 7

Name:_____

Accelerated 7th Grade Math

Show your work for all appropriate problems! **No Work = No Points!** If you are not sure whether or not you should show work for any given problem, error on the **SHOW WORK** side!

1) Simplify.

a. $-12 + 20$

b. $10 - -4$

c. $-40 + -23$

d. $9 \div -3$

e. $(-5)^2$

f. -3^2

g. $-8 - a$ if $a = -8$

h. $10 - a$ if $a = -12$

i. $-a + -6$ if $a = -11$

j. $-4 - a$ if $a = |4|$

k. $-10 \bullet a$ if $a = |-5|$

l. $-3 \bullet a$ if $a = -|3|$

2) Which is greater?

a. $\frac{5}{8}$ or 0.7

b. -0.3 or $-\frac{1}{4}$

3)Compute each of the following...

a. $4\frac{1}{2} - 3\frac{6}{7}$

b. $5 \bullet -3\frac{2}{5}$

c. $-\frac{4}{5} - \frac{3}{4}$

d. $-4\frac{1}{2} \div -3\frac{6}{7}$

e. $\frac{4}{5} - 1\frac{2}{3}$

f. $-1\frac{1}{3} + 3\frac{3}{4}$

4) Mr Cravatta's truck gets 18 miles/gallon and he has $5\frac{5}{9}$ gallons of gas in his tank. How far can he drive?

5) Simplify the following

a. -3(x + 9) – 2 + 5x

b. 22x – 7 + -2(x – 5) + 13x

6) Solve the equations. Don't forget to SHOW ALL YOUR STEPS!

a. a – 6 = –21

b. –6 – d = 7

c. 6f = –54

d. $-7 = -\frac{g}{2}$

e. $-2 = \frac{3}{4}n - 6$

f. $3k - 7 = 16$

g. $2m + 12 + 6m = -4$

h. $-2(3x + 6) = 5$

i. $4x - (x - 6) = 30$

j. $4x - 1 = 6x - 5$

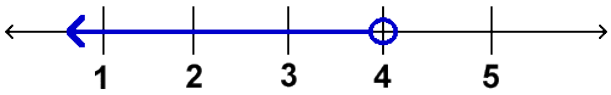
7) Determine whether each number is a solution of the given inequality.

$2z + 1 \geq -5$ a. –4 b. –2 c. 4

8) Write an inequality to model the situation:

At least 35 students needed their schedule changed before school started.

9) Write an inequality for the graph.



10) Solve each inequality and graph the solution.

a. $-5x + 12 \leq -18$

b. $16 - u > 10$

11) Convert to a percentage:

a. $\frac{53}{80}$

b. $\frac{7}{11}$

12) Solving Percent Problems.

a. How much is 45% of 70?

b. 67% of 20 is how much?

c. What percent of 45 is 5?

d. 20 is what percent of 105?

13) Calculate the percent increase or decrease.

a. 24 to 20

b. 56 to 78

14) Jessica had $500 in her savings account last month. This month, she has $530. What is the percent increase?

15) There is a sale at your favorite clothing store. Everything is 30% off! You pick out a shirt, a pair of jeans, and a belt. Your total is $126 before the sale. When you get to the register, the salesperson asks you if you'd like to open up a store credit card for an additional 10% off. You agree.

a. What is your final cost (without tax)?

b. If the tax rate is 6%, what is your final cost including tax?

16) Calculate the total balance for an initial investment of $4,000 that grows with simple interest at a rate of 7% for 15 years.

17) A teacher counts tests as 60% of a student's final grade and homework as 40%. If a student has an average of 92% for tests and 76% on homework, what percent will the student receive for their final grade?

18) Calculate the following student's GPA.
(On a "4.0 scale" A = 4.0, B = 3.0, C = 2.0, D = 1.0)

College Algebra	3 credits	A-
Writing	3 credits	B
Humanities	2 credits	A
Biology	3 credits	A
Organic Chem.	4 credits	D+

19) Find the greatest possible error for each measurement below.

a. 14.2 ft b. 3.00 cm

20) Find the percent error for each measurement below.

a. 0.0045 g b. 13.11 m

21) Tell whether each of the following pairs of ratios form a proportion. Justify your answer with work!

a. $\frac{3}{5} = \frac{7}{9}$ b. $\frac{5}{20} = \frac{2}{8}$

22) Solve each of the following proportions.

a. $\frac{7}{12} = \frac{x}{11}$ b. $\frac{4}{x} = \frac{7}{8}$ c. $\frac{x+1}{3} = \frac{x-4}{2}$

23) In 2004, Kobayashi (the famous hot dog eater) ate 54 hot dogs in 12 minutes (a new world record). At this rate, how many hot dogs could he eat in 15 minutes? Round to the nearest hot dog.

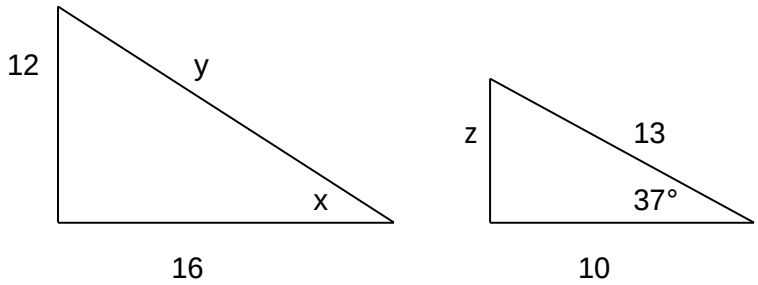
24) Store A is selling 10 rolls of toilet paper for $5.50, while store B is selling 32 rolls for $17.00. Show a unit rate for each store and determine which store has the better deal?

25) Convert the following units using the information provided below. Show work!

2.21 lbs = 1 kg 1,000 g = 1 kg 1 mile = 5,280 ft

a. How many miles is 17,200 ft? b. 24 lbs = _____ g

26) The triangles are similar. Find x, y and z.



27) Mrs Hodges graded the following test scores in her class: 94, 80, 78, 83, 95, 82, 68, 85, 78, 66, 90, 74, 55

a) Find the mean score on the test

b) Find the median score on the test

c) Find the mode(s)

d) Find the range

e) Which of the above is the best way to represent this data (the best measure of central tendency)? WHY?

28) Anthony scores 8, 8, 5, 8, 7, 10, 7, 9 and 6 points in his first 9 basketball games. In order to average 10 points for the season, how many points will he have to score in his 10^{th} game?

29) You decide you want to find out how many frogs are in the wetlands near your back yard. You tag 45 frogs and release them back in the wild. A few weeks later, you collect a sample of 50 frogs, 11 of which are tagged. Estimate the total frog population in that area.

30) In a new board game, players have to roll a fair, six sided die and flip a coin.

a. What is the probability that a player will roll the #1 and flip tails in the same turn?

b. What is the probability that a player will roll an even number and flip heads in the same turn?

31) On the last test, there were 3 A's, 6 B's, 3 C's, 2 D's, and 2 F's. If I grab one test at random, what is the probability I will grab and A or B?

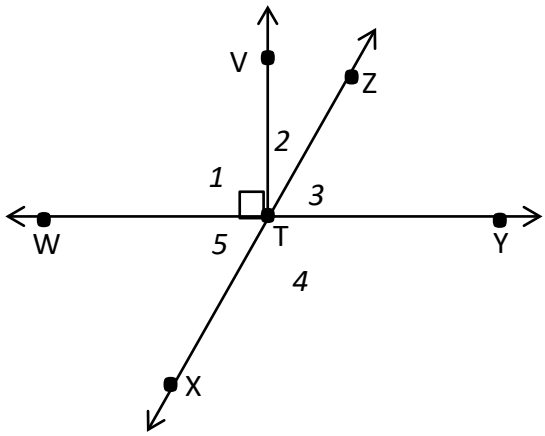
32) A container initially contains 18 titles for a game of charades: 8 movie titles, 3 book titles, 4 TV shows, and 3 plays. Titles are ***not replaced*** once used.

a. What is the probability that Susan draws a book title, Ted draws a movie title, and Ann randomly selects a movie title in that order?

33) If I flip a coin 6 times, find the probability that they all will land on heads.

34) You have 3 pairs of red socks, 2 pairs of green socks, and 7 pairs of white socks. What is the probability of pulling out one red pair and then pulling out one white pair without replacement?

35) Use the picture to the right to answer the following:



a) What angle is complementary to <2 ?

b) What angle is vertical to <5 ?

c) What angle is supplementary to <3 ?

d) What 2 angles are adjacent to <5 ?

e) What angle is complementary to <5 ?

f) What angle is vertical to <4 ?

m<3 = 65°. Write 65° in the picture and use it to answer the following questions. DO NOT use a protractor!

g) What is m<1 ?

h) What is m<2 ?

i) What is m<4 ?

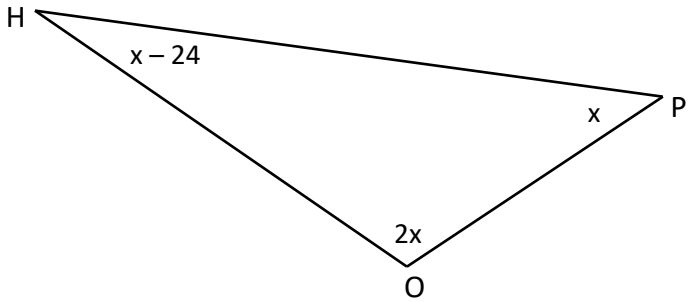
j) What is m<5 ?

36) Sketch the following triangles. Use hash marks on the triangle's sides to show if they are congruent or not.

a) acute and scalene

b) right and isosceles

37) Find "x" and the missing angles.



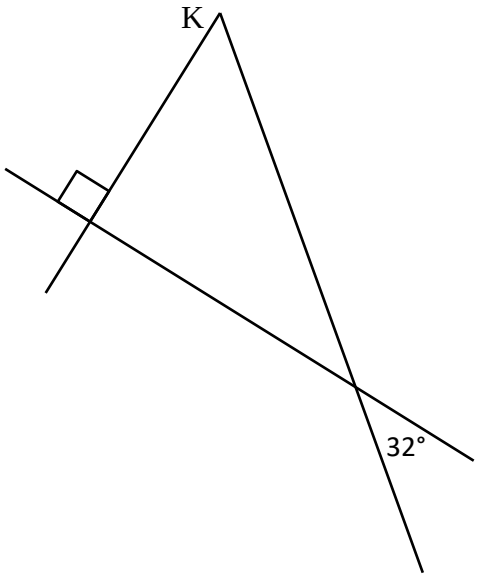
x = _____

m<H = _____

m<O = _____

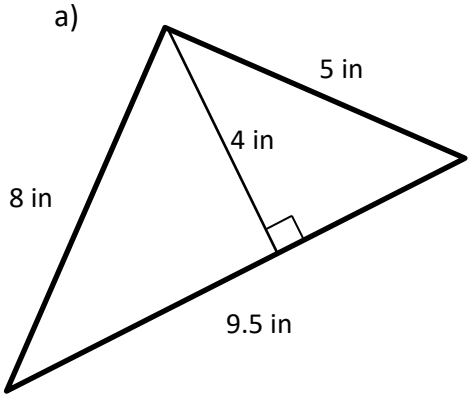
m<P = _____

38) Using the picture to the right, find m<K

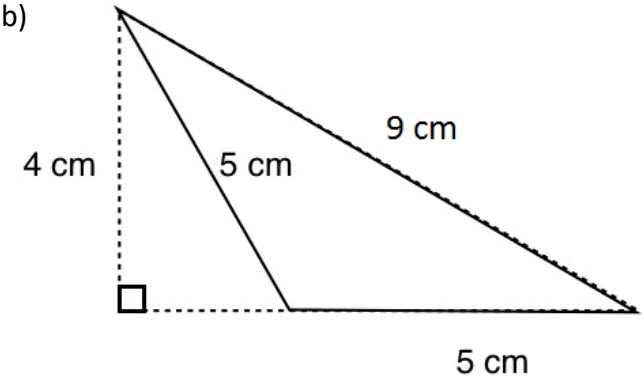


39)Find the area and perimeter of the following triangles.

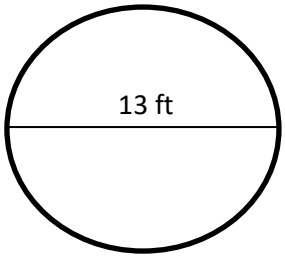
a)



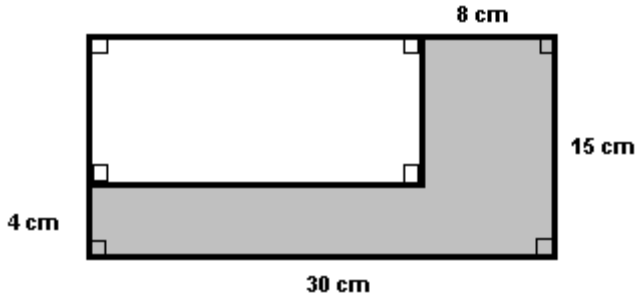
b)



40)Find the area and circumference of the circle.

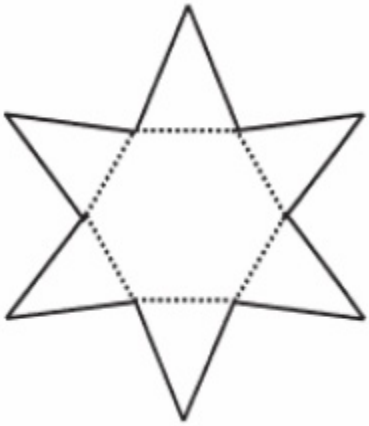


41)Find the area of the shaded region.

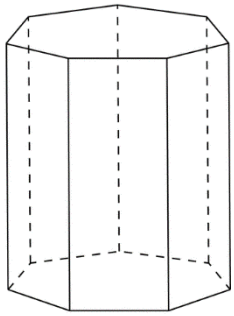


42)Name the following figures

a)

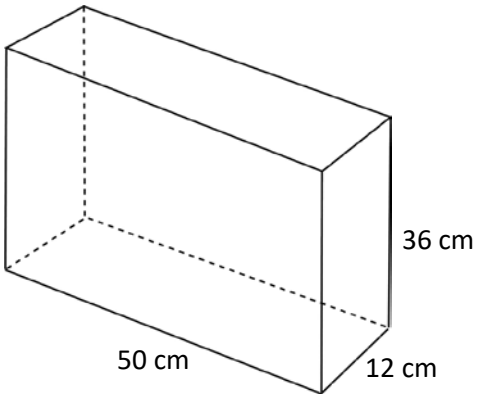


b)

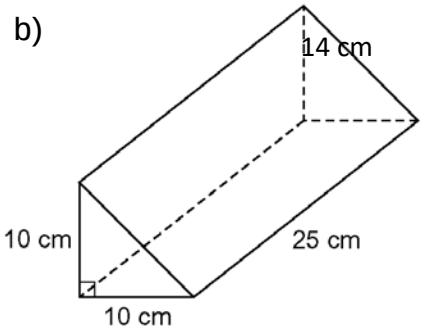


43)Find the **surface area** AND **volume** of the following shapes. Show all of your work and include units with your answer!

a)



b)



8th Grade Final Exam Review

Name:_____

Accelerated 7th Grade Math

1. Fill in the table below...

Fraction	Decimal	Percent
$\frac{2}{5}$		
	0.08	
		58%
$\frac{1}{3}$		
		3%
	0.781	
		400%

Evaluate.

2. $\sqrt{81}$
3. $\sqrt{-36}$
4. $\sqrt[3]{1}$
5. $\sqrt[3]{8}$
6. $-\sqrt{16}$
7. $\sqrt{121}$
8. $\sqrt[3]{-27}$
9. $\sqrt[3]{216}$
10. $\sqrt{-49}$
11. $\sqrt{\frac{4}{16}}$
12. $\pm\sqrt{\frac{64}{121}}$
13. $-\sqrt{\frac{16}{81}}$
14. $\sqrt{5(4+2)-10\div5+7\cdot3}$
15. $\sqrt{9\cdot6+10\div5+4\cdot2}$

Estimate each to the nearest tenths place (without a calculator).

16. $\sqrt{3}$ 17. $\sqrt{110}$ 18. $\sqrt{72}$

For each of the following state, "rational" or "irrational".

19. π 20. $\sqrt{100}$ 21. $\sqrt{18}$ 22. 19

23. -38.9 24. 19.168423... 25. 8.16161616... 26. 9.010010001...

Write each of the following numbers in scientific notation.

27. 9,260,000,000 28. 0.00061 29. 8.7E-9 30. 65,000

Write each of the following numbers in standard notation.

31. 7.1×10^{9} 32. 1.75×10^{-3} 33. 4.813×10^{-7} 34. 9.432×10^{3}

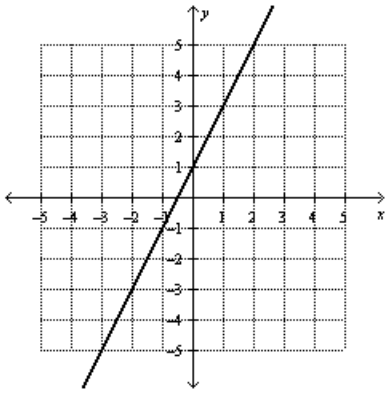
Circle the appropriate unit of measure for each of the following…

35. The average length of a newborn is 43.2 mm / cm / m.

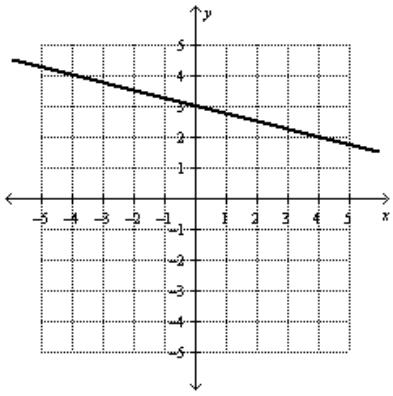
36. An average weight of a newborn is 3.2 mg / g / kg

37. Write a linear equation for each of the following...

a.



b.



c.

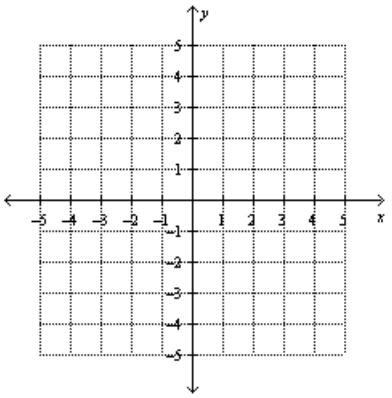
x	y
-3	12
0	24
3	36
6	48
9	60

d.

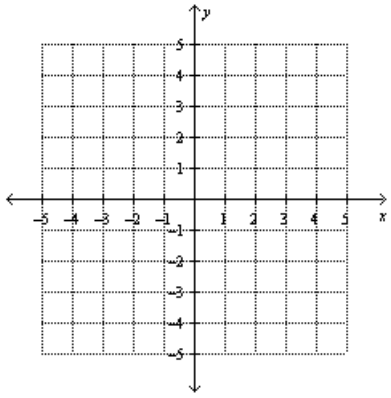
x	y
2	16
4	8
6	0
8	-8
10	-16

38. Graph each of the following lines...

a. $y = 3x - 5$



b. $y = \frac{1}{4}x + 2$



39. The golf club is looking for new members. There are currently 6 students in the club, but every day three more people sign up.

a. Write a linear equation that represents the situation. _____

b. Use the equation you wrote in part "a" to answer each of the following...

i. How many students are in the club after 4 days?

ii. If there are 27 people in the club, how many days have gone by?

c. Write the ***equation*** for the line that goes through each pair of points listed below...

a. (9, 10) and (3, -2)

b. (-1, -5) and (6, -10)

40. Solve the equations (write small or show your work on separate paper)

a. $4x - 9 = 19$

b. $3 - \frac{3}{4}x = 43$

c. $\frac{x}{2} - 2 = 3$

d. $3(x - 6) = 8$

e. $-\frac{1}{2}(4x + 8) = 9$

f. $4x + 5x = 18$

g. $6x - 8.2 - 3x = 2$

h. $7x - 2 + 3x + 6 = 84$

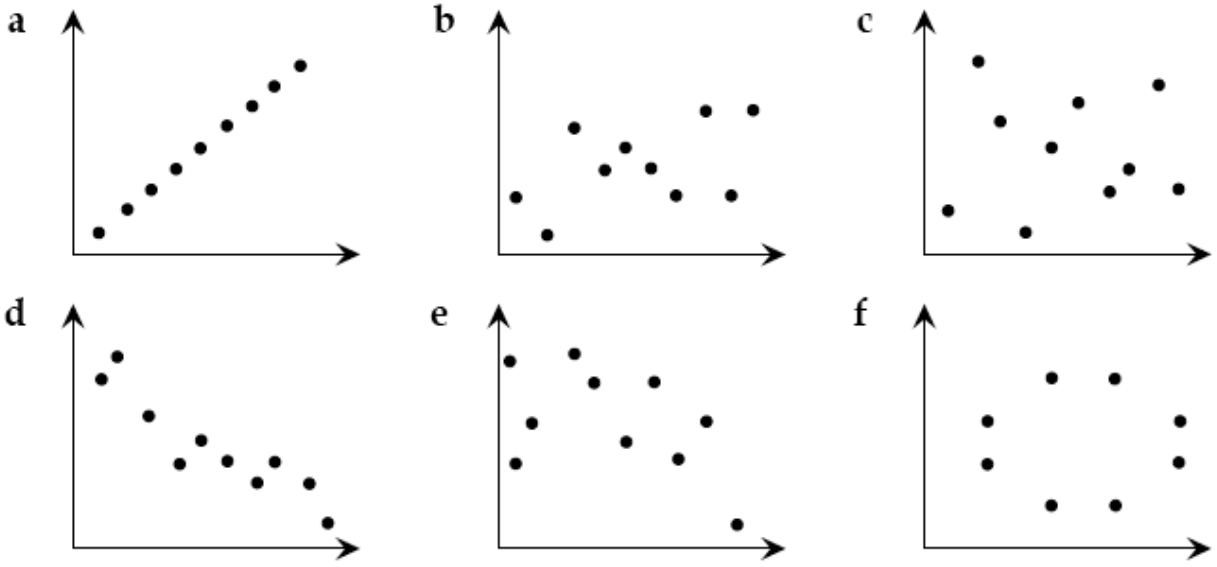
i. $4(x - 2) + 3x = 14$

j. $3\frac{1}{2}x - 2 + \frac{1}{2}x = 5x$

k. $3(x - 4) = 5x$

l. $4x - 1 + 3x = 6x - 3x$

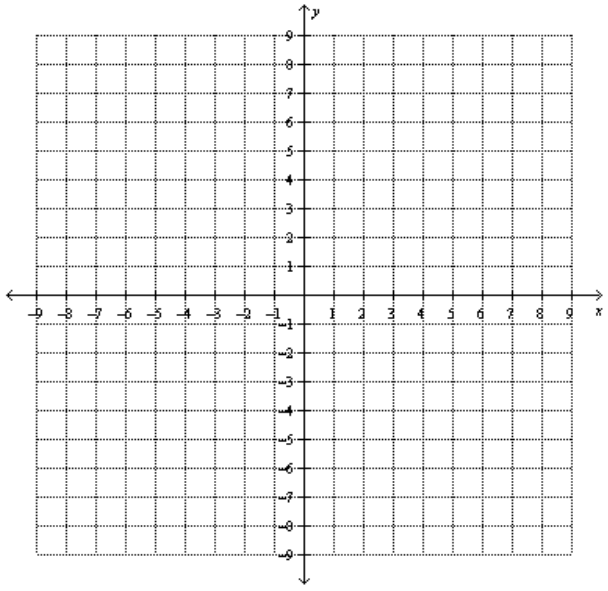
41. For a-f, identify if the scatter plot has a positive association, negative association, or no association.



42. What is an outlier? Include a sketch of a graph to help illustrate your explanation.

43. Solve by graphing.

$y = \frac{1}{2} \cdot x - 2$ and $y = \frac{2}{3} \cdot x$



44. Solve by substitution.

y = 2x + 5
y = 6x + 1

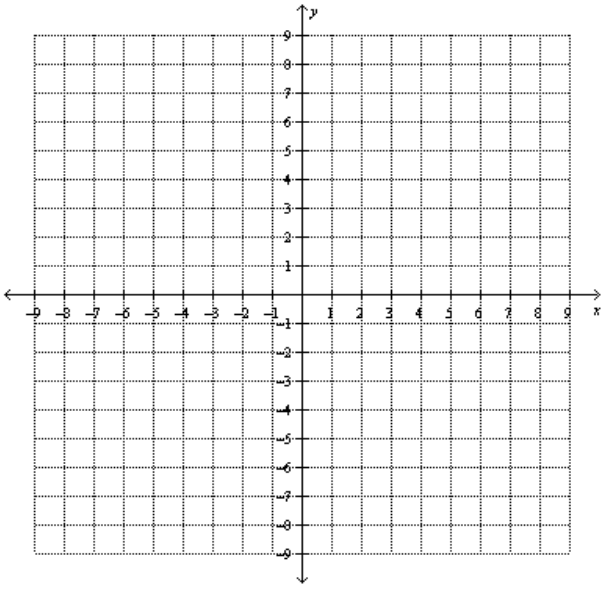
45. Solve by elimination.

2x+ 3y = 11
-2x + 9y = 1

For numbers 46-47, circle the method that you used.

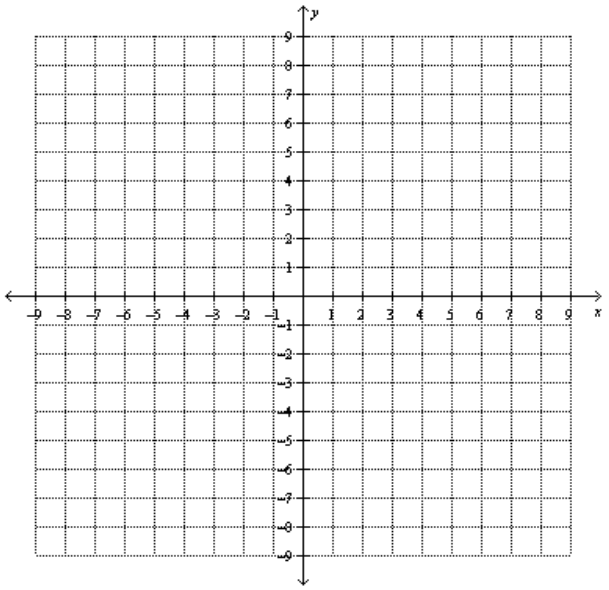
46. graphing substitution elimination

7x + 2y = 10
-7x + y = -16



47. graphing substitution elimination

$5x + 2y = -9$
$y = -4x - 12$



48. The student council is planning an ice skating trip. Ice World charges a $150 fee to rent the rink and then they charge an additional $5 for each student that comes. Rink-a-Rama charges a $300 fee to rent the rink and then an additional $2 for each student that comes. For what number of students, would the rinks cost the same price?

a. Write a system of linear equations.

b. Solve the system to answer the question.

a. My solution means that...

49. Mr. Cravotta is a busy man! He started out with a list of 3 students he needed to meet with today. Each hour that passes by, two students were added to his list. Use this situation to answer the following questions...

a. What is the independent variable?

b. What is the dependent variable?

c. Complete the table.

x	0	1	2	3	4	5	6
y							

d. Is this a function? Why or why not?

50. For each rule, complete the tables below. Show the calculations in the "work" box.

a. $y = 3x - 12$

x	-2	-1	0	1	2
Work					
y					

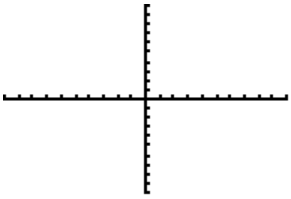
b. $y = x^2 - 2x$

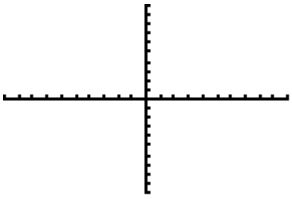
x	-2	-1	0	1	2
Work					
y					

c. $y = 3^x$

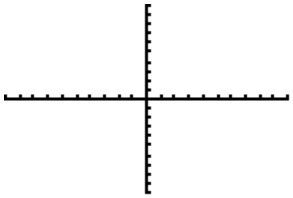
x	0	1	2	3	4
Work					
y					

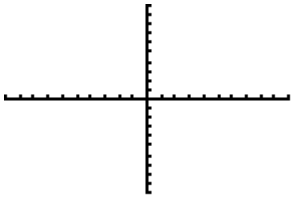
51. Draw two graphs that are functions.





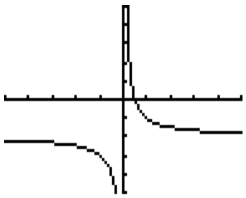
52. Draw two graphs that are NOT functions.





53. For each of the graphs below, decide if they are a function or not. Justify your answer. If they are a function tell which of the families of functions it belongs to.

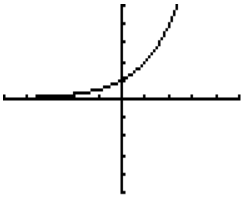
a.



Function: Yes or No

Family:_____

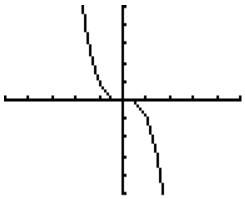
b.



Function: Yes or No

Family: _____

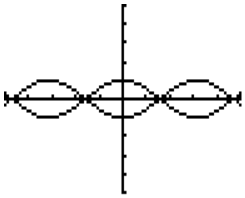
c.



Function: Yes or No

Family:_____

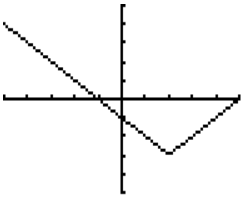
d



Function: Yes or No

Family:_____

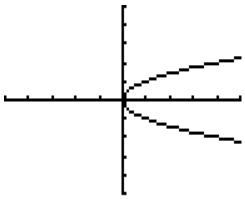
e.



Function: Yes or No

Family: _____

f.



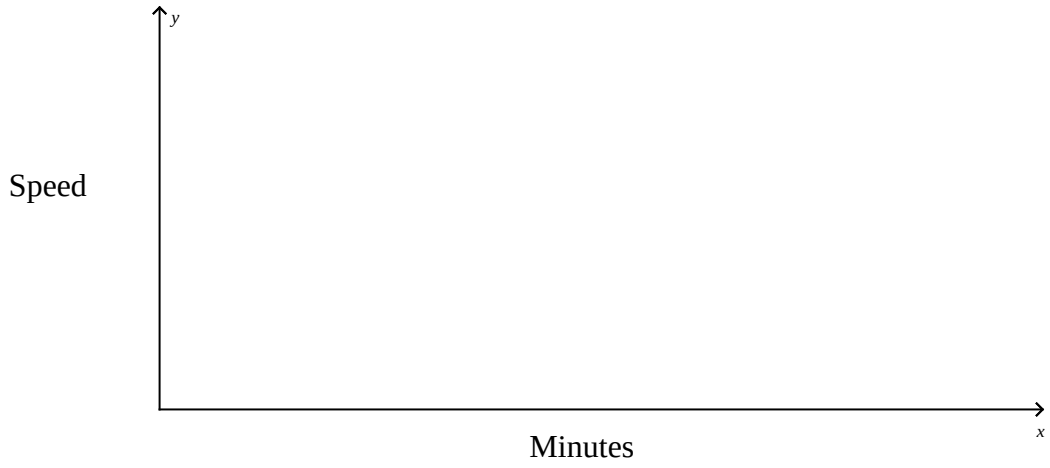
Function: Yes or No

Family:_____

54. Consider the situation described below...

A bus is driving at a steady pace down the road. The bus then slows down and comes to a stop while the first student climbs aboard. The bus then speeds up and then continues driving at a steady pace. The bus then speeds up again as the speed limit for the road increases and then continues driving at this faster speed. The bus then slows down and comes to a stop while the next student climbs aboard.

Sketch a graph showing the speed of the bus as it drives down the road.

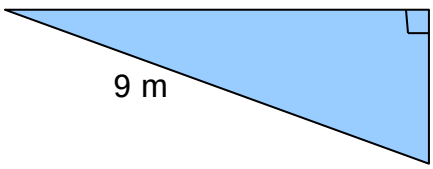


55. Would these sides form a right triangle? Show you work! 15 ft., 9 ft., 12, ft.

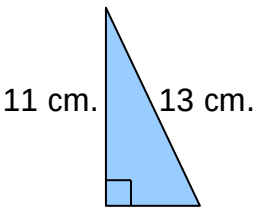
56. A car drives due south for 120 miles, then turns and drive due east for 200 more miles. If a plane traveled this same distance, but could fly in a straight line from the 1st destination to the 2nd, how many miles would the plane be traveling?

57. Find the **perimeter** of each figure below...

a.



b.



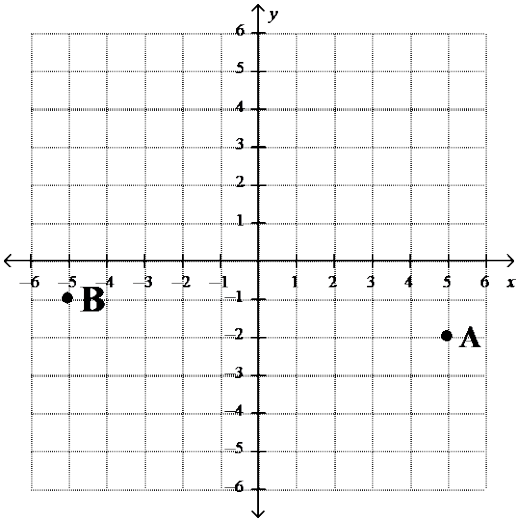
58. The distance between two points can be found by using the following formula...

$$d = \sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2}$$

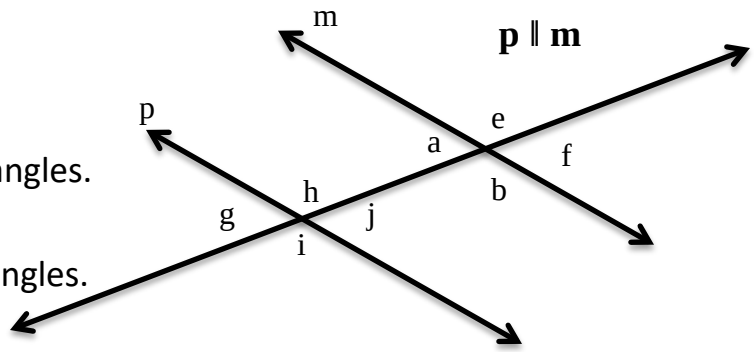
Use this formula to find the distance between each of the following pairs of points.

(-4, 7) and (6, -9)

59. Find the distance between points A and B on the grid.



60. Use the drawing to the right.



a. Name two pairs of same-side interior angles.

b. Name two pairs of alternate-interior angles.

c. Name four pairs of corresponding angles.

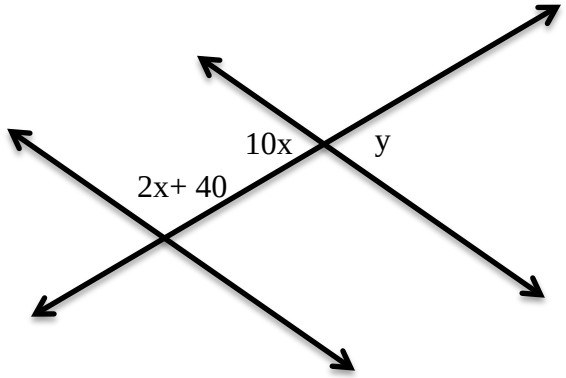
d. Name four pairs of vertical angles.

e. Name two pairs of supplementary angles that are NOT same side interior.

f. Suppose m<i = 120°, find m<h = m<b = m<a = m<j =

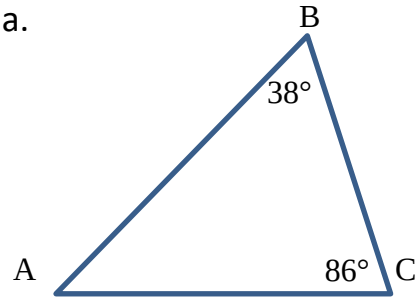
g. Suppose that m<a = 3x + 12 and m<h = 4x – 7. Find m<h and m<a.

61. Find x and y.

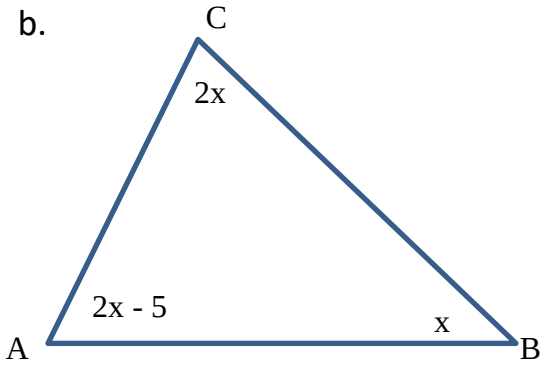


62. Find all the angle measures in each triangle below.

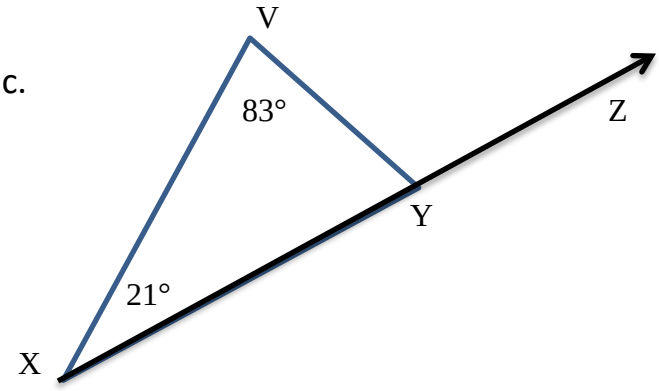
a.



b.



c.



<X = _____

<V = _____

<VYX = _____

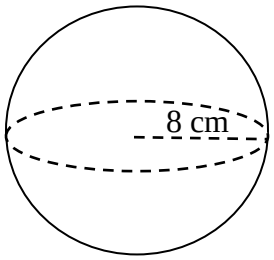
<VYZ = _____

63. Fill in the blanks below...

	Total # of Faces	Shape of Base
a. Triangular Prism	_____	_____
b. Pentagonal Prism	_____	_____
c. Square Pyramid	_____	_____
d. Hexagonal Pyramid	_____	_____

64. For each of the following...
- ✓ Name the figure
- ✓ Find the Surface Area – show your work.
- ✓ Find the Volume – show your work.

a.

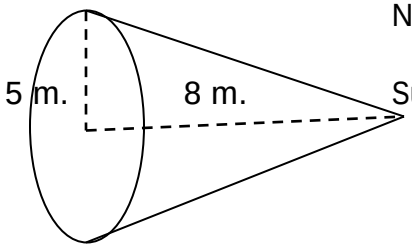


NAME:_____

Surface Area –

Volume –

b.

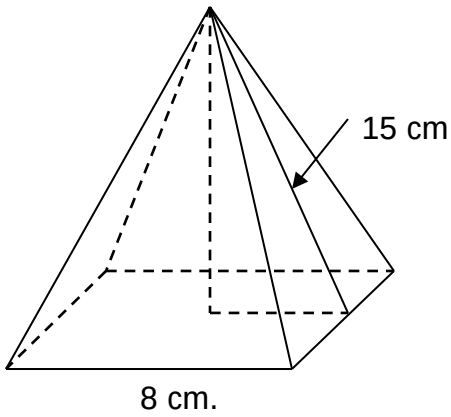


NAME: _____

Surface Area -

Volume -

c.



NAME: _____

Surface Area:

Volume:

65. A can has a radius of 3 cm and a height of 8 cm. Find the volume

Answers

1) 0.4,40%
2/25, 8%
29/50, 0.58
0.333..., 33%
3/100, 0.03
781/1000, 78.1%
4/1, 4
2) 9
3) NP
4) 1
5) 2
6) -4
7) 11
8) -3
9) 6
10) -7
11) ½
12) 8/11, -8/11
13) -4/9
14) 7
15) 8
16) 1.7
17) 10.5
18) 8.5
19) I
20) R
21) I
22) R
23) R
24) I
25) R
26) I
27) 9.26×10^{9}
28) 6.1×10^{-4}
29) 8.7×10^{-9}
30) 6.5×10^{4}
31) 7,100,000,000
32) 0.00175
33) 0.0000004813
34) 9,432
35) cm
36) kg
37) a. y=2x+1
b. y=-1/4x+3
c. y=4x+24
d. y=-4x+24
39) a. y=3x+6
b. 18 people
c. 7 days
40) a. x=7
b. x=-53.3
c. x=25
d. x=8.7
e. x=-6.5
f. x=2
g. x=3.4
h. x=8
i. x=3.1
j. x=-2
k. x=-6
l. x=0.25
41) a. +
b. +
c. none
d. –
e. –
f. none
43) (3, 2)
44) (1, 7)
45) (4, 1)
46) (2, -2)
47) (-5, 8)
48) a. y=5x+150, y=2x+300
b. (50, 400)
49) a. time (hours)
b. # of students
c. 3, 5, 7, 9, 11, 13
d. yes
50) a. -18, -15, -12, -9
b. 8, 3, 0, -1, 0
c. 1, 3, 9, 27, 81
53) a. Y – Inverse/Rtnl
b. Y – Exponential
c. Y – Cubic
d. N
e. Y – Abs. Value
f. N
55) 225=225, YES
56) 233.2 mi
57) a. 21.7 m
b. 30.9 cm
58) 18.9
59) 10
60) a. h & a, j & b
b. a & j, h & b
c. g & a, h & e, i & b, j & f
d. h & i, g & j, a & f, e & b
e. i & j, h & j
f. 120, 120, 60, 60
g. x=25, 87, 93
61) x=11.7, y=117 (doesn't match pic)
62) a. 56
b. 69, 37, 74
c. 21, 83, 76, 104
63) a. 5 – triangle
b. 7 – pentagon
c. 5 – square
d. 7 – hexagon
64) a. sphere, 804 in^2, 2,144 in^3
b. cone, 226 m^2, 209 m^3
c. square pyramid, 304 cm^2, 309 cm^3
65) 226 cm^3

	Volume	Surface Area
Prism	$V = Bh$ *(B = area of the base)*	*Add up all the areas of all of the faces.*
Cylinder	$V = \pi r^2 h$	$SA = 2\pi r^2 + 2\pi r h$
Cone	$V = \frac{1}{3}\pi r^2 h$	$SA = \pi r^2 + \pi r l$
Pyramid	$V = \frac{1}{3}Bh$	*Add up all the areas of all of the faces.*
Sphere	$V = \frac{4}{3}\pi r^3$	$SA = 4\pi r^2$

Helpful Area Formulas...

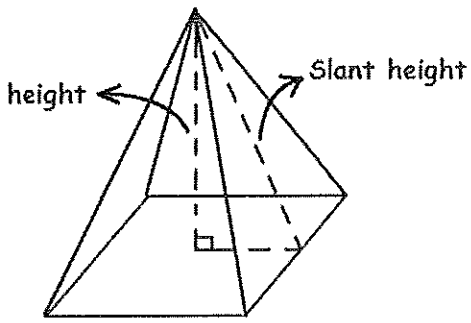
Square/Rectangle/Parallelogram: $A = bh$

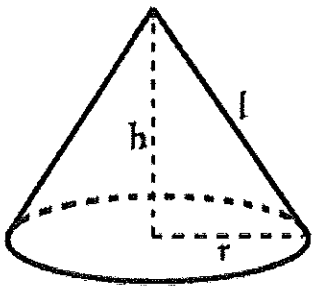
Circle: $A = \pi r^2$

Trapezoid: $A = \frac{1}{2}(b_1 + b_2)h$

Reminder...

Slant height and the height of the pyramid/cone are NOT the same.





$$Circumference\ of\ Circle = 2 \bullet \pi \bullet r$$

$$Area\ of\ \text{Rectangle} = l \bullet w$$

$$Area\ of\ Triangle = \frac{1}{2} \bullet l \bullet w$$

$$Area\ of\ Circle = \pi \bullet r^2$$

$$Area\ of\ \text{Parallelogram} = b \bullet h$$

$$Area\ of\ Trapezoid = \frac{1}{2} \bullet h \bullet (b_1 + b_2)$$

$$Surface\ Area\ of\ \text{Prism} = p \bullet h + 2 \bullet B$$

$$Surface\ Area\ of\ Cylinder = 2 \bullet \pi \bullet r \bullet h + 2 \bullet B$$

$$Surface\ Area\ of\ Pyramid = \frac{1}{2} \bullet p \bullet l + B$$

$$Surface\ Area\ of\ Cone = \pi \bullet r \bullet l + B$$

$$Surface\ Area\ of\ Sphere = 4 \bullet \pi \bullet r^2$$

$$Volume\ of\ box = l \bullet w \bullet h$$

$$Volume\ of\ \text{Prism}\ or\ Cylinder = B \bullet h$$

$$Volume\ of\ Cone\ or\ Pyramid = \frac{1}{3} \bullet B \bullet h$$

$$Volume\ of\ Sphere = \frac{4}{3} \bullet \pi \bullet r^3$$

Math For Cool People - Summer Practice

Multiple Choice
Identify the choice that best completes the statement or answers the question.

____ 1. Consider the real numbers listed below and write in order from **least to greatest.**

$0, \quad -1, \quad \frac{2}{5}, \quad -\frac{3}{10}, \quad -0.2, \quad 0.29$

a. $\frac{2}{5}$, 0.29, 0, -0.2, $-\frac{3}{10}$, -1

b. 0, -0.2, 0.29, $-\frac{3}{10}$, $\frac{2}{5}$, -1

c. -1, $-\frac{3}{10}$, -0.2, 0, $\frac{2}{5}$, 0.29

d. -1, $-\frac{3}{10}$, -0.2, 0, 0.29, $\frac{2}{5}$

____ 2. Use the picture below to write a ratio for the number of <u>hearts</u> to <u>total shapes</u> and **simplify.**

a. 1:2 b. 1:3 c. 2:4 d. 2:6

____ 3. -16 + 25

a. -9 b. 9 c. 41 d. -41

____ 4. Evaluate: – a + –18 for a = –2

a. -20 b. -16 c. 20 d. 36

____ 5. Evaluate: –a – b for a = 5 b = $|-2|$

a. -7 b. -3 c. 3 d. 7

____ 6. -4^2

a. 8 b. -8 c. 16 d. -16

____ 7. $\frac{4}{5} \div \frac{1}{2}$

a. $\frac{2}{5}$ b. $\frac{5}{8}$ c. $1\frac{3}{5}$ d. $2\frac{2}{5}$

____ 8. $4\frac{2}{3} - 2\frac{1}{6}$

a. $2\frac{1}{4}$ b. $2\frac{1}{3}$ c. $2\frac{1}{2}$ d. $6\frac{5}{6}$

____ 9. $1\frac{2}{3} \bullet 2\frac{1}{5}$

a. $\frac{25}{33}$ b. $1\frac{8}{25}$ c. $2\frac{2}{15}$ d. $3\frac{2}{3}$

____ 10. Jim is baking his favorite cookies. He has $1\frac{1}{4}$ cups of flour. His recipe call for $2\frac{1}{3}$ cups of flour. How many cups of flour does Jim need to make his favorite cookies?

a. $1\frac{2}{7}$ b. $1\frac{5}{7}$ c. $1\frac{1}{12}$ d. $3\frac{7}{12}$

____ 11. $\frac{x}{6} - 8 = -3$

a. -66 b. -30 c. $\frac{5}{6}$ d. 30

____ 12. $5x - 8 = 2x + 1$

a. $x = -1$ b. $x = 1\frac{2}{7}$ c. $x = 3$ d. $x = 5$

____ 13. $4(x - 2) = 3x + 4 - x$

a. $x = -1$ b. $x = -.\overline{6}$ c. $x = 2$ d. $x = 6$

____ 14. $3(m + 3) + 1 \leq 16$

a. $m \geq 2$ b. $m \leq 4$ c. $m \leq 2$ d. $m \leq 5$

____ 15. $\frac{2}{10} = \frac{3}{x}$

a. $x = 11$ b. $x = 12$ c. $x = 15$ d. $x = 30$

____ 16. $\frac{x+2}{8} = \frac{x-7}{10}$

a. $x = 37$ b. $x = 38$ c. $x = -37$ d. $x = -38$

____ 17. Find 210% of 92.

a. 19.32 b. 19,320 c. 193.2 d. .4381

____ 18. 26 inches = _____ meters (1 inch = 2.54 cm, 100 cm = 1m)

a. 0.10 b. 0.66 c. 10.23 d. 6,604

____ 19. The cost of an item is $134 but is on sale for 15% off. You also have a 15% off coupon. Find the price of the item after both discounts.

a. $96.82 b. $40 c. $93.80 d. $67

____ 20. In a science class, tests are worth 60%, quizzes 30%, and HW 10%. Find the weighted average for a student who earns a 72% on quizzes, 82% on HW, and 92% on tests.

a. 77% b. 79% c. 82% d. 85%

____ 21. To the nearest tenth of a percent, find the percent error of this measurement: 1.7in

a. .3% b. 29.4% c. 2.9% d. 3%

____ 22. You deposit $850 into an account that earns 7% interest annually (once per year). Find the balance of your account after 10 years. Round your answer to the nearest cent.

a. $909.5 b. $1,672.08 c. $1,445 d. $967.05

____ 23. A shirt at the store was originally priced at $24 but is on sale for $15. Find the percent decrease.

a. 38% b. 60% c. 63% d. 160%

____ 24. If x = -4, find $x^2 - 4$.

a. -20 b. -12 c. 4 d. 12

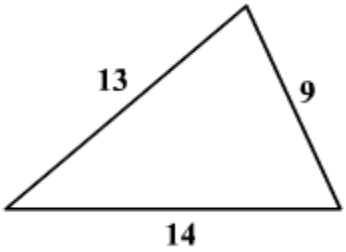
____ 25.

A college student earns an A- in Calculus (4 credits), a B+ in Psychology (3 credits), an A- in Matrix Algebra (4 credits), and a D in Coral Reefs (1 credit). ***(A = 4, A- = 3.7, B+ = 3.3, B = 3, B- = 2.7, etc)***

Calculate the students GPA?

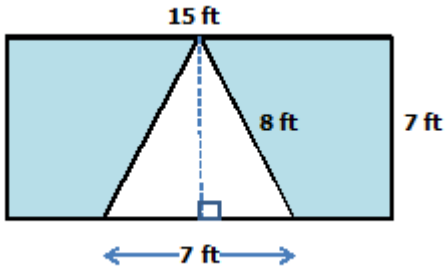
a. 4.0
b. 40.5
c. 3.3
d. 3.375

____ 26. Classify the triangle by it's side length



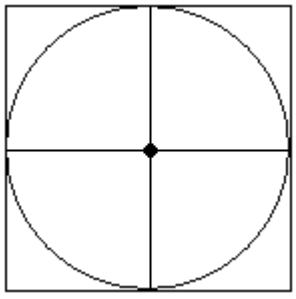
a. isosceles b. scalene c. obtuse d. acute

____ 27. Find the area of the shaded region.



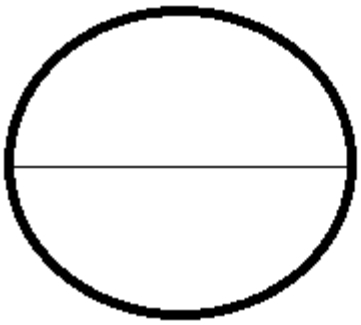
a. $77ft^2$ b. $80.5ft^2$ c. $129.5ft^2$ d. $133ft^2$

____ 28. 2. A circle with a diameter of 10 inches has its center at the center of a square with 10-inch sides. Find the **area** of the region that is *inside the square and outside the circle*.



a. 2.5 in.^{2} b. 6.4 in.^{2} c. 21.5 in.^{2} d. 71.4 in.^{2}

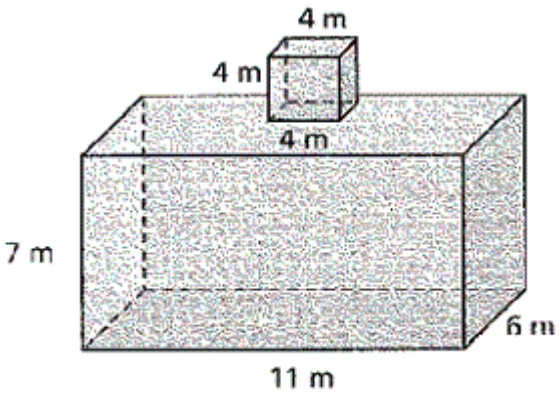
____ 29.



Find the diameter of the circle if the circumference is 52.25 meters. Use 3.14 for Pi.

a. 4.07 m
b. 8.32 m
c. 16.64 m
d. 26.13 m

____ 30. Find the volume of the following figure



a. $414m^3$
b. $434m^3$
c. $462m^3$
d. $526m^3$

Use the data below to answer questions # 31-32

Mrs Hodges graded the following test scores in her class:
94, 80, 78, 83, 95, 82, 68, 85, 78, 66, 90, 74, 55

____ 31. Find the mean
a. 79.1
b. 80
c. 86.2
d. 90

____ 32. Find the median
a. 78
b. 80
c. 86
d. 90

____ 33. Temperatures during the first six days of February were 42, 27, 18, 34, 22, and 30 degrees. If the average temperature during the first week was 30 degrees, what was the temperature for the last day of the first week?

a. 30
b. 37
c. 35
d. 42

____ 34.
Biologists are worried about Asian carp invading Lake Michigan. They estimate the population monthly to determine if the problem is getting worse. A biologist captures 80 carp and tags their fins. He then releases the carp back into the water and, one week later, captures another 150 carp. Of those 150, 3 were tagged. Estimate the total Asian carp population in Lake Michigan.

a. 1.6
b. 5.6
c. 3500
d. 4000

Use the following answers #35-37

Mr. Roy surveyed 68 students in his math class and asked them what their favorite class was. The results are listed below.

Language Arts	5
Math	16
Social Studies	5
Science	10
PE	15
Art	12
Other	5

____ 35. What percent of students surveyed enjoyed Language Arts the best?
a. 5%
b. 7%
c. 13.6%
d. 70%

____ 36. If there are 265 students in the 7th grade, estimate the number of 7th grades that like PE the most.
a. 4
b. 15
c. 58
d. 72

____ 37. What percent of the students enjoyed every class other than Math?
a. 23.5 %
b. 30.7%
c. 62%
d. 76%

____ 38. If you roll a six sided dice, what is the ***theoretical*** probability of rolling the #4?

a. $\frac{1}{6}$ b. $\frac{1}{4}$ c. $\frac{1}{3}$ d. $\frac{2}{3}$

____ 39. Find *P*(rolling 2 or 5) with one number cube.

a. $\frac{1}{2}$ b. $\frac{1}{3}$ c. $\frac{1}{6}$ d. 1

____ 40. Consider the data in the table below...

6	4	2	3	4
3	1	5	3	6
6	3	2	4	3
2	5	1	4	6

A die is rolled 20 times. The chart above shows the outcomes of the experiment. What is the **experimental** probability that the die will turn up an even number?

a. 20% b. 45% c. 50% d. 55%

____ 41. You have 15 pennies in your pocket. Of those pennies, 3 are Canadian. Suppose you pick a penny out of your pocket at random. Find *P*(not Canadian).

a. 5 b. $\frac{1}{5}$ c. $\frac{6}{5}$ d. $\frac{4}{5}$

____ 42. There are 2 red, 3 green, and 4 white marbles in a bag. What is the probability of drawing 2 white marbles in a row if the marbles are not replaced? Round to the nearest whole number.

a. 16% c. 20%
b. 17% d. 22%

____ 43. 3 cards are drawn from a deck of 52 without replacement. Find P(heart, heart, heart).

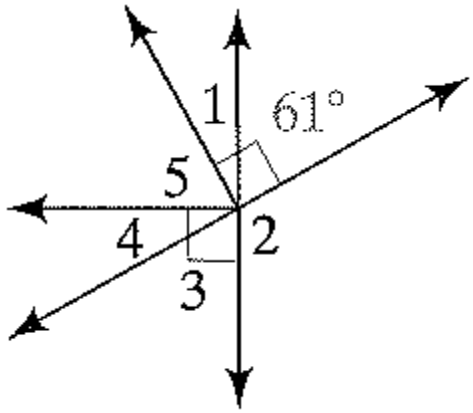
a. 1.3% c. 2.6%
b. 2% d. 3.1%

____ 44.

The owner of Salvadore's Restaurant plans to advertise the variety of lunches served. If there are six varieties of vegetables, five types of main courses, and four kinds of salads, how many total combinations of one vegetable, one main course and one salad are there?

a. 15 c. 120
b. 30 d. 240

____ 45. Find the measure of < 4.



a. 29º b. 34º c. 61º d. 90º

____ 46. Select the measure of the complement or supplement of the angle. If there is no complement or supplement, select *no complement or supplement*.

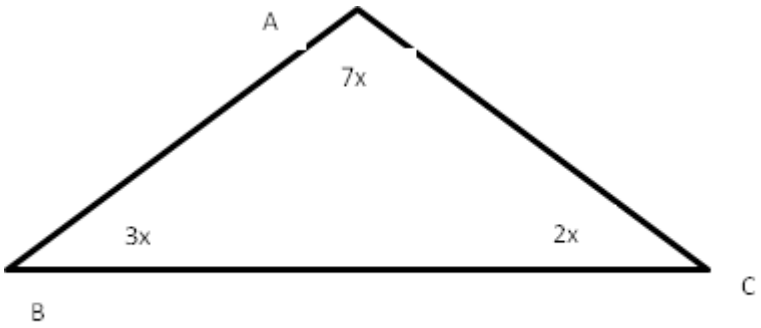
55.1º

a. 124.9º
b. 119.9º
c. 49.9º
d. no complement or supplement

____ 47. Which of the following numbers COULD NOT be the length of the sides of a triangle?

a. 5, 6, 7
b. 12, 5, 17
c. 6, 9, 8
d. 8, 7, 2

____ 48.



Find the measure of <A

a. 15°
b. 30°
c. 45°
d. 105°

____ 49. 0.8 =

a. 0.8% b. 8% c. 80% d. 800%

____ 50. 4% =

a. 0.04 b. 0.4 c. 4 d. 8

____ 51. $-\sqrt{16}$

a. -4 b. 4 c. -8 d. Not Possible

____ 52. $\sqrt[3]{27}$

a. -3 b. 3 c. -9 d. 9

____ 53. $\sqrt[3]{-64}$

a. -4 b. 4 c. 8 d. Not possible

____ 54. Choose the best answer to complete the statment below...

When rational numbers are written in decimal form they...

a. terminate.
b. repeat.
c. terminate or repeat.
d. do NOT terminate or repeat.

____ 55. Write the following number in scientific notation...

0.00000864

a. 8.64×10^{-6} b. 8.64×10^{-8} c. 86.4×10^{6} d. 86.4×10^{-8}

____ 56. Write the following number in standard notation...

5.4×10^{5}

a. 0.0000054 b. 0.000054 c. 540,000 d. 5,400,000

____ 57. Write the answer to the following question in scientific notation.

$$6.2 \times 10^5 + 8.9 \times 10^8$$

a. 8.9062×10^8 b. 1.51×10^8 c. 1.51×10^9 d. 15.1×10^{13}

____ 58. Which equation would produce the steepest graph?

a. y = 8x + 10 b. y = 5x + 12 c. y = 1 + 10x d. y = 7x + 3

____ 59. 3(x - 2) + 3x = 12

a. 3 b. 4 c. 12 d. 15

____ 60. 4 + 2(3x - 7) = 2x - 3(x + 4)

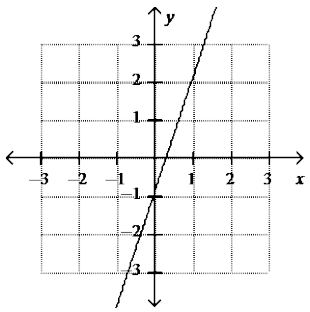
a. $-\frac{2}{7}$ b. 1 c. $1\frac{5}{7}$ d. 2

____ 61. $\frac{1}{2}(4x+6) - 7x = 8$

a. -4 b. -1 c. $-\frac{2}{5}$ d. 1

Identify the slope for #62-64.

____ 62.



a. $\frac{1}{3}$ b. 1 c. 3 d. -1

____ 63. (4, 8) and (5, 1)

a. -7 b. 0 c. 3 d. 7

____ 64.

x	y
-2	10
0	20
2	30
4	40
6	50

a. 2 b. 5 c. 10 d. 20

Write the linear equation for #65-67.

____ 65. *Carter has a collection of DVDs. He currently has 14 and he gets 2 more each year.*

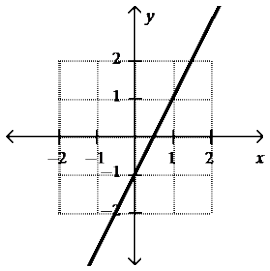
a. y = 14x + 2 b. y = 14x - 2 c. y = 2x + 14 d. y = 2x - 14

____ 66.

x	y
-2	2
-1	5
0	8
1	11
2	14

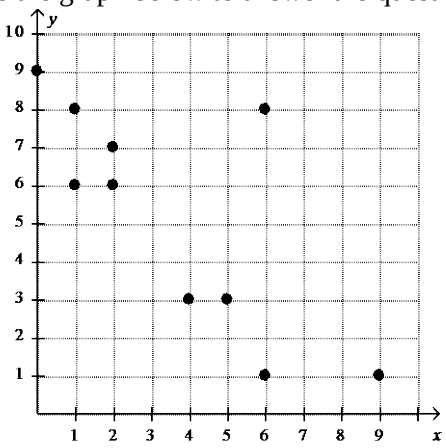
a. y = 1x + 3 b. y = -1x + 8 c. y = 8x + 3 d. y = 3x + 8

____ 67.



a. y = -1x + 2 b. y = 2x - 1 c. y = 2x + 1 d. y = 1x + 2

Use the graph below to answer the questions.



____ 68. What type of association is shown in the scatterplot?

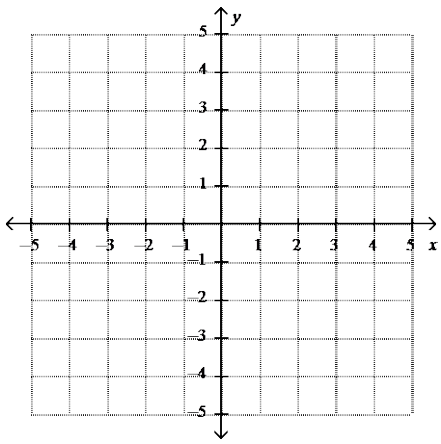
a. Positive Association
b. Negative Association
c. No Association

____ 69. Put the following equation in ***slope-intercept*** form: 6x – 2y = 4

a. y = 3x – 2 b. y = –3x – 2 c. y = –3x + 2 d. y = 3x + 2

____ 70. Solve the following systems of equation by **graphing**: y = 3x – 1

y = –x + 3



a. (1, 2) b. (0, 3) c. (2, 1) d. (3, 0)

____ 71. Solve the following systems of equation by **substitution**: –2y + 4 = 3x

y = 2x – 5

a. (2.5, 2) b. (2, –1) c. (1, 4) d. (2.5, 2)

____ 72. Solve the following systems of equation by **elimination**: 3x – 7y = 2

–3x +

5y = –10

a. (10 ,4) b. (4, 1.4) c. (0.4, 4) d. (4, 8)

____ 73. Solve the following systems of equation by **elimination**: 2x – 3y = 4

6x + 2y = 34

a. (2, 11) b. (0, 2) c. (5, 11) d. (5, 2)

____ 74. Find the solution to the system of linear equations listed below...

y = 2x + 5
x + y = 8

a. (1, 7) b. (1, 8) c. (2, 3) d. (8, 4)

____ 75. Nick and Dan are having a race. Since Nick is faster, Dan gets a 20 foot head start. Nick's speed is 6 feet per second while Dan's is 4 feet per second. How long will it take for Nick to catch up to Dan?

a. 5 seconds b. 10 seconds c. 30 seconds d. 60 seconds

____ 76. How many solutions will the system below have?

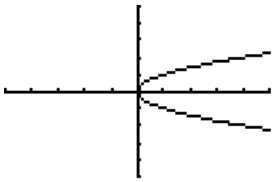
$$y = -2x + 3$$
$$y = -2x - 1$$

a. One solution b. No Solutions c. Infnitely Many Solutions

____ 77. The **range** represents all possible _____ values.

a. x b. y

____ 78. Is the following graph a function?



a. yes b. no

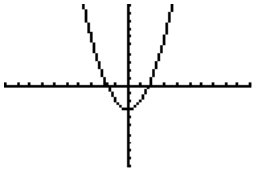
____ 79. Consider the equation below.

$$y = 5^x$$

Which family does it belong to?

a. linear b. quadratic c. cubic d. exponential

____ 80. Consider the graph below...



What family does it belong to?

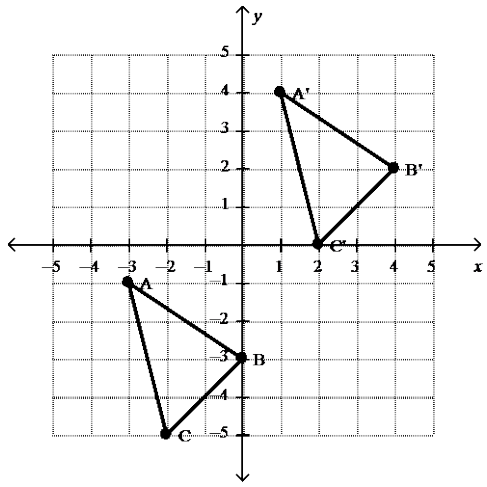
a. absolute value b. rational c. cubic d. quadratic

____ 81. Is the following set of points a function?

{(-4, 8), (-1, 14), (6, 3), (10, 14), (15, 11)}

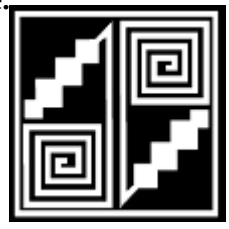
a. Yes b. No

____ 82. Which rule describes the translation illustrated below...



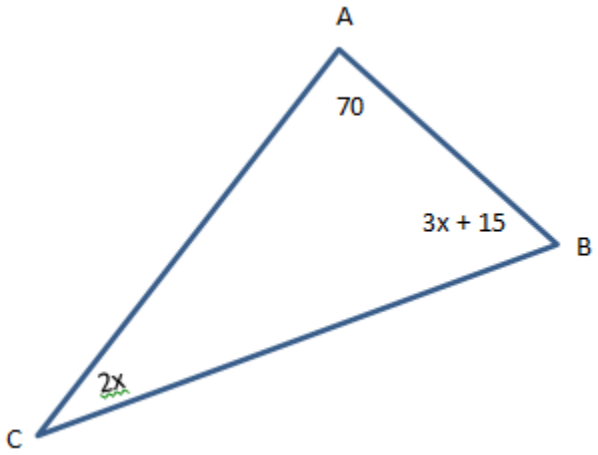
a. (x, y) →(x-4, y-5)
b. (x, y) →(x-4, y+5)
c. (x, y) →(x+4, y-5)
d. (x, y) →(x+4, y+5)

____ 83. **Name the type of symmetry for the figure.**



a. reflectional b. rotational c. rotational and reflectional d. no symmetry

____ 84. Consider triangle ABC below.



Find $\angle B$.

a. 19° b. 38° c. 57° d. 72°

____ 85. The point (3, 9) is rotated 270º counterclockwise. What is its new location?

a. (9, 3) b. (-9, -3) c. (-9, 3) d. (9, -3)

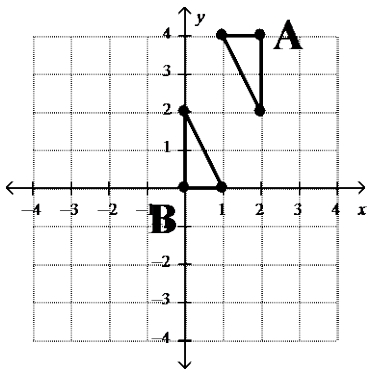
____ 86. The point (4, 12) is rotated 180º counterclockwise. What is its new location?

a. (12, 4) b. (-4, -12) c. (-12, -4) d. (12, -4)

____ 87. Write a rule to describe the transformation that is a reflection over the *x*-axis.

a. $(x, y) \rightarrow (y, x)$
b. $(x, y) \rightarrow (-x, y)$
c. $(x, y) \rightarrow (-x, -y)$
d. $(x, y) \rightarrow (x, -y)$

____ 88. Consider the images below...



Which transformation would complete the sequence below and transform triangle A to triangle B?

1. Rotate 180º.
2. Translate right 2.
3.

a. Reflect over the x-axis.
b. Reflect over the y-axis.
c. Translate up 4.
d. Translate down 1.

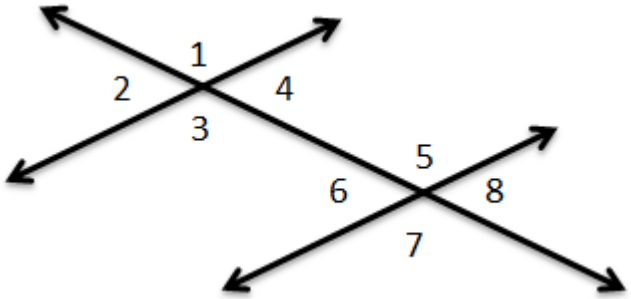
____ 89. Complete the statement. If a transversal intersects two parallel lines, then ____.

a. corresponding angles are supplementary
b. same-side interior angles are complementary
c. alternate interior angles are congruent
d. none of these

____ 90. Complete the statement. If a transversal intersects two parallel lines, then **____** angles are supplementary.

a. acute b. alternate interior c. same-side interior d. corresponding

In the picture below there are parallel lines cut by a transversal.



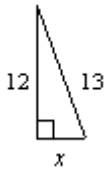
____ 91. $\angle 3$ and $\angle 7$ are _____.

a. corresponding angles
b. alternate interior angles
c. same side exterior angles
d. same side interior angles.

____ 92. A grid shows the positions of a subway stop and your house. The subway stop is located at (–5, 2) and your house is located at (–9, 9). What is the distance, to the nearest unit, between your house and the subway stop?

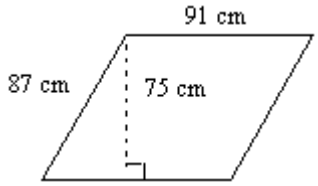
a. 5 b. 13 c. 8 d. 18

____ 93. Find the **perimeter** in the figure below...



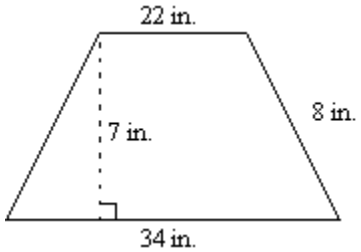
a. 5 units b. 25 units c. 28 units d. 30 units

____ 94. Find the **area** of the figure below...



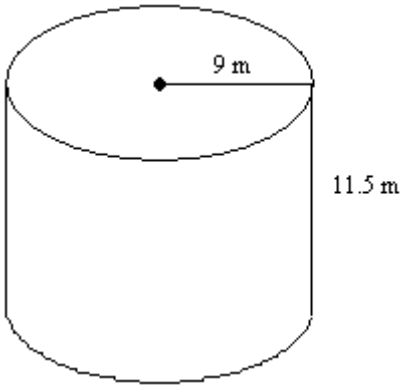
a. 6,675 cm^2 b. 6,825 cm^2 c. 7,371 cm^2 d. 7,917 cm^2

____ 95. Find the **area** of the figure below...



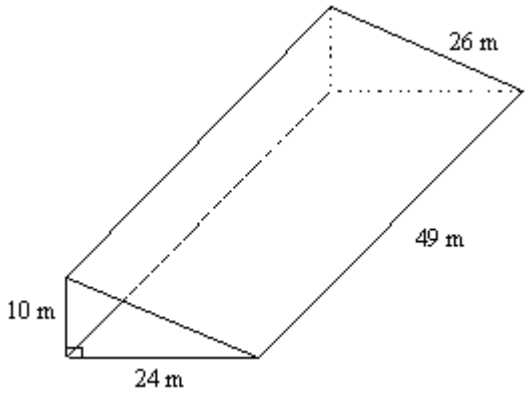
a. 196 in.^{2} b. 224 in.^{2} c. 392 in.^{2} d. 448 in.^{2}

____ 96. S Find the **surface area** of the cylinder to the nearest square unit. Use 3.14 for pi.



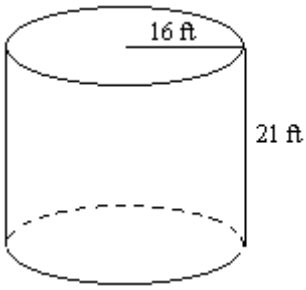
a. 104 m^2 b. 185 m^2 c. 579 m^2 d. 1,159 m^2

____ 97. Calculate the **surface area** of the right triangular prism.



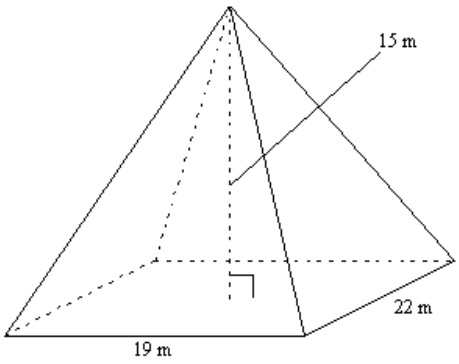
a. 2,935 m^2 b. 3,180 m^2 c. 5,880 m^2 d. 11,760 m^2

____ 98. VoFind the **volume** of the cylinder. Use 3.14 for pi.



a. 1,055.04 ft^3 b. 16,235.52 ft^3 c. 16,880.64 ft^3 d. 22,155.84 ft^3

____ 99. Calculate the **volume** of the pyramid.



a. 615 m^3 b. 720 m^3 c. 1,984 m^3 d. 2,090 m^3

____ 100. What is the volume of a box that has a height of 2 ft, and width of 4 feet and a length of 5 feet?

a. $11ft^3$ b. $26ft^3$ c. $40ft^3$ d. $41ft^3$

____ 101. Concrete can be purchased by the cubic yard. How much will it cost to pour a slab 17 **feet** by 17 **feet** by 2 **inches** for a patio if the concrete costs $40.00 per **cubic yard**?

a. $1926.67 b. $71.36 c. $214.07 d. $321.11

Math For Cool People - Summer Practice

Answer Section

MULTIPLE CHOICE

1. ANS: D PTS: 1 OBJ: ordering rational numbers
2. ANS: B PTS: 1 OBJ: writing ratios
3. ANS: B PTS: 1 OBJ: adding integers
   STA: N.FL.07.08
4. ANS: B PTS: 1 OBJ: exponents
5. ANS: A PTS: 1 OBJ: exponents STA: N.FL.07.08
6. ANS: D PTS: 1 OBJ: exponents STA: N.FL.07.08
7. ANS: C PTS: 1 OBJ: dividing fractions
8. ANS: C PTS: 1 OBJ: subtracting fractions
9. ANS: D PTS: 1 OBJ: multiplying fractions
   STA: N.FL.07.08
10. ANS: C PTS: 1 OBJ: story problem with fractions
11. ANS: D PTS: 1 OBJ: solving equations
12. ANS: C PTS: 1 OBJ: solving equations
    STA: A.FO.07.12
13. ANS: D PTS: 1 OBJ: solving equations
    STA: A.FO.07.12
14. ANS: C PTS: 1 OBJ: solving equations
    STA: A.FO.07.12
15. ANS: C PTS: 1 OBJ: solving proportions
    STA: N.FL.07.05
16. ANS: D PTS: 1 OBJ: solving proportions
    STA: N.FL.07.05
17. ANS: C PTS: 1
18. ANS: B PTS: 1
19. ANS: A PTS: 1
20. ANS: D PTS: 1
21. ANS: C PTS: 1
22. ANS: C PTS: 1
23. ANS: A PTS: 1
24. ANS: D PTS: 1 OBJ: Substitution
25. ANS: D PTS: 1
26. ANS: B PTS: 1
27. ANS: B PTS: 1 LOC: Area TOP: Area
28. ANS: C PTS: 1 LOC: Area TOP: Area
29. ANS: C PTS: 1
30. ANS: D PTS: 1 LOC: Volume TOP: Volume
31. ANS: A PTS: 1
32. ANS: B PTS: 1
33. ANS: B PTS: 1
34. ANS: D PTS: 1
35. ANS: B PTS: 1

36. ANS: C PTS: 1
37. ANS: D PTS: 1
38. ANS: A PTS: 1
39. ANS: B PTS: 1 DIF: L1 REF: 6-4 Probability
OBJ: 6-4.1 Finding Probability
NAT: NAEP D4a | NAEP D4b | CAT5.LV18.46 | CAT5.LV18.51 | CAT5.LV18.53 | CTBS.LV18.46 | CTBS.LV18.51 | CTBS.LV18.53 | ITBS.LV14.PS | S9.Adv1.DSP | S10.Adv1.DSP | TV.LV18.15
STA: 8MI VI.1.2 | 8MI VI.2.1 TOP: 6-4 Example 1
KEY: outcome | event | probability
MSC: NAEP D4a | NAEP D4b | CAT5.LV18.46 | CAT5.LV18.51 | CAT5.LV18.53 | CTBS.LV18.46 | CTBS.LV18.51 | CTBS.LV18.53 | ITBS.LV14.PS | S9.Adv1.DSP | S10.Adv1.DSP | TV.LV18.15
40. ANS: D PTS: 1 DIF: L1 REF: 6-4 Probability
OBJ: 6-4.1 Finding Probability
NAT: NAEP D4a | NAEP D4b | CAT5.LV18.46 | CAT5.LV18.51 | CAT5.LV18.53 | CTBS.LV18.46 | CTBS.LV18.51 | CTBS.LV18.53 | ITBS.LV14.PS | S9.Adv1.DSP | S10.Adv1.DSP | TV.LV18.15
STA: 8MI VI.1.2 | 8MI VI.2.1 TOP: 6-4 Example 1
KEY: outcome | event | probability
MSC: NAEP D4a | NAEP D4b | CAT5.LV18.46 | CAT5.LV18.51 | CAT5.LV18.53 | CTBS.LV18.46 | CTBS.LV18.51 | CTBS.LV18.53 | ITBS.LV14.PS | S9.Adv1.DSP | S10.Adv1.DSP | TV.LV18.15
41. ANS: D PTS: 1 DIF: L1 REF: 6-4 Probability
OBJ: 6-4.1 Finding Probability
NAT: NAEP D4a | NAEP D4b | CAT5.LV18.46 | CAT5.LV18.51 | CAT5.LV18.53 | CTBS.LV18.46 | CTBS.LV18.51 | CTBS.LV18.53 | ITBS.LV14.PS | S9.Adv1.DSP | S10.Adv1.DSP | TV.LV18.15
STA: 8MI VI.1.2 | 8MI VI.2.1 TOP: 6-4 Example 2
KEY: complement of an event | event | outcome | probability | word problem
MSC: NAEP D4a | NAEP D4b | CAT5.LV18.46 | CAT5.LV18.51 | CAT5.LV18.53 | CTBS.LV18.46 | CTBS.LV18.51 | CTBS.LV18.53 | ITBS.LV14.PS | S9.Adv1.DSP | S10.Adv1.DSP | TV.LV18.15
42. ANS: B PTS: 1
43. ANS: A PTS: 1
44. ANS: C PTS: 1
45. ANS: C PTS: 1 DIF: L1 REF: 8-1 Pairs of Angles
OBJ: 8-1.2 Using Supplementary Angles and Complementary Angles
NAT: NAEP G3g | CAT5.LV18.56 | CTBS.LV18.56 | ITBS.LV14.G | S9.Adv1.GM | S10.Adv1.GM | TV.LV18.14 STA: 8MI II.3.1 TOP: 8-1 Example 2
KEY: adjacent angles | vertical angles | complementary angles | supplementary angles
MSC: NAEP G3g | CAT5.LV18.56 | CTBS.LV18.56 | ITBS.LV14.G | S9.Adv1.GM | S10.Adv1.GM | TV.LV18.14
46. ANS: A PTS: 1 DIF: L1 REF: 8-1 Pairs of Angles
OBJ: 8-1.2 Using Supplementary Angles and Complementary Angles
NAT: NAEP G3g | CAT5.LV18.56 | CTBS.LV18.56 | ITBS.LV14.G | S9.Adv1.GM | S10.Adv1.GM | TV.LV18.14 STA: 8MI II.3.1 TOP: 8-1 Example 4
KEY: complement | complementary angles | supplement | supplementary angles
MSC: NAEP G3g | CAT5.LV18.56 | CTBS.LV18.56 | ITBS.LV14.G | S9.Adv1.GM | S10.Adv1.GM | TV.LV18.14
47. ANS: B PTS: 1 DIF: L1 REF: 8-1 Pairs of Angles
OBJ: 8-1.2 Using Supplementary Angles and Complementary Angles
NAT: NAEP G3g | CAT5.LV18.56 | CTBS.LV18.56 | ITBS.LV14.G | S9.Adv1.GM | S10.Adv1.GM | TV.LV18.14 STA: 8MI II.3.1 TOP: 8-1 Example 4
KEY: complement | complementary angles | supplement | supplementary angles
MSC: NAEP G3g | CAT5.LV18.56 | CTBS.LV18.56 | ITBS.LV14.G | S9.Adv1.GM | S10.Adv1.GM |

TV.LV18.14

48. ANS: D PTS: 1
49. ANS: C PTS: 1 OBJ: converting decimals to percents
TOP: Symbolic Representation Unit
50. ANS: A PTS: 1 OBJ: converting percents to decimals
TOP: Symbolic Representation Unit
51. ANS: A PTS: 1 OBJ: square roots TOP: Symbolic Representation Unit
52. ANS: B PTS: 1 OBJ: cube roots TOP: Symbolic Representation Unit
53. ANS: A PTS: 1 OBJ: cube root TOP: Symbolic Representation Unit
54. ANS: C PTS: 1 OBJ: rational vs. irrational
TOP: Symbolic Representation Unit
55. ANS: A PTS: 1 OBJ: Scientific Notation
TOP: Symbolic Representation Unit
56. ANS: C PTS: 1 OBJ: Scientific Notation
TOP: Symbolic Representation
57. ANS: A PTS: 1 OBJ: Operations with Scientific Notation
TOP: Symbolic Representation Unit
58. ANS: C PTS: 1 OBJ: slope STA: A.PA.07.07
TOP: Linear Relationships Unit
59. ANS: A PTS: 1 OBJ: Solving Multi-Step Equations
TOP: Linear Relationships Unit
60. ANS: A PTS: 1 OBJ: Solving Multi-Step Equations
STA: A.FO.07.13 TOP: Linear Relationships Unit
61. ANS: B PTS: 1 OBJ: Solving Multi-Step Equations
TOP: Linear Relationships Unit
62. ANS: C PTS: 1 OBJ: slope TOP: Linear Relationships Unit
63. ANS: A PTS: 1 OBJ: slope TOP: Linear Relationships Unit
64. ANS: B PTS: 1 OBJ: slope TOP: Linear Relationships Unit
65. ANS: C PTS: 1 OBJ: Writing Linear Equations
NAT: A.RP.07.02 STA: A.FO.07.13 TOP: Linear Relationships Unit
66. ANS: D PTS: 1 OBJ: Writing Linear Equations
STA: A.RP.07.02 TOP: Linear Relationships Unit
67. ANS: B PTS: 1 OBJ: Writing Linear Equations
STA: A.RP.07.02 TOP: Linear Relationships Unit
68. ANS: B PTS: 1 OBJ: Scatterplots TOP: Scatterplots Unit
69. ANS: A PTS: 1 OBJ: Converting Equations to y=mx+b
LOC: Systems of Linear Equations TOP: Systems of Linear Equations
70. ANS: A PTS: 1 OBJ: Solving By Graphing
LOC: Systems of Linear Equations TOP: Systems of Linear Equations
71. ANS: B PTS: 1 OBJ: Solving By Substitution
LOC: Systems of Linear Equations TOP: Systems of Linear Equations
72. ANS: A PTS: 1 OBJ: Solving by Elimination
LOC: Systems of Linear Equations TOP: Systems of Linear Equations
73. ANS: D PTS: 1 OBJ: Solving By Elimination
LOC: Systems of Linear Equations TOP: Systems of Linear Equations
74. ANS: A PTS: 1 OBJ: Solving Systems Using any Strategy
LOC: Systems of Linear Equations TOP: Systems of Linear Equations
75. ANS: B PTS: 1 OBJ: Systems Story Problems

LOC: Systems of Linear Equations TOP: Systems of Linear Equations
76. ANS: B PTS: 1 OBJ: Determining the Number of Solutions to a System
LOC: Systems of Linear Equations TOP: Systems of Linear Equations
77. ANS: B PTS: 1 OBJ: Domain and Range
LOC: Families of Functions TOP: Families of Functions
78. ANS: B PTS: 1 OBJ: Function or Not
TOP: Famlies of Functions
79. ANS: D PTS: 1 OBJ: Families of Functions
TOP: Families of Functions
80. ANS: D PTS: 1 OBJ: Families of Functions
TOP: Families of Functions
81. ANS: A PTS: 1 OBJ: Function or Not
82. ANS: D PTS: 1 OBJ: Tranlations
83. ANS: B PTS: 1 DIF: L2 REF: 9-4 Symmetry
OBJ: Symmetry NAT: NAEP 2005 G2a | ADP K.6 TOP: 9-4 Example 2
KEY: symmetry | rotational symmetry | reflectional symmetry | point symmetry | line symmetry
84. ANS: D PTS: 1 OBJ: Angles of a Triangle Sum to 180 - algebra
85. ANS: D PTS: 1 OBJ: Rotations
86. ANS: B PTS: 1 OBJ: Rotations
87. ANS: D PTS: 1 DIF: L2 REF: 9-2 Reflections
OBJ: Reflections NAT: NAEP 2005 G2a | NAEP 2005 G2b | NAEP 2005 G2c | ADP K.6
STA: MI G3.1.1| MI G3.1.3 TOP: 9-2 Example 1
KEY: translation | transformation | coordinate plane | translation rule
88. ANS: C PTS: 1 OBJ: Sequencing Transformations
89. ANS: C PTS: 1 DIF: L2 REF: 3-1 Properties of Parallel Lines
OBJ: Properties of Parallel Lines NAT: NAEP 2005 M1f | ADP K.2.1
STA: MI L4.1.3| MI G1.1.2| MI G1.1.6 KEY: transversal | parallel lines
90. ANS: C PTS: 1 DIF: L2 REF: 3-1 Properties of Parallel Lines
OBJ: Properties of Parallel Lines NAT: NAEP 2005 M1f | ADP K.2.1
STA: MI L4.1.3| MI G1.1.2| MI G1.1.6 KEY: transversal | parallel lines | supplementary angles
91. ANS: A PTS: 1 OBJ: Angle Relationships
92. ANS: C PTS: 1 DIF: L3
REF: 8-1 The Pythagorean Theorem and Its Converse OBJ: Distance Formula
NAT: NAEP 2005 G3d | ADP I.4.1 | ADP J.1.6 | ADP K.1.2 | ADP K.5 | ADP K.10.3
STA: MI G1.2.3| MI L1.1.6| MI L2.1.6 TOP: 8-1 Example 3
KEY: Pythagorean Theorem | leg | hypotenuse | word problem | problem solving
93. ANS: D PTS: 1 OBJ: Pythagorean Theorem - Perimeter
LOC: Pythagorean Theorem TOP: Pythagorean Theorem
94. ANS: B PTS: 1 OBJ: Area LOC: Area
TOP: Area
95. ANS: A PTS: 1 OBJ: Area LOC: Area
TOP: Area
96. ANS: D PTS: 1 OBJ: Surface Area
LOC: Surface Area TOP: Surface Area
97. ANS: B PTS: 1 OBJ: Surface Area
LOC: Surface Area TOP: Surface Area
98. ANS: C PTS: 1 OBJ: Volume LOC: Volume
TOP: Volume
99. ANS: D PTS: 1 OBJ: Volume LOC: Volume

TOP: Volume

100. ANS: C PTS: 1 OBJ: Volume

101. ANS: B PTS: 1 DIF: L3
REF: 11-4 Volumes of Prisms and Cylinders OBJ: Volume
NAT: NAEP 2005 M1j | ADP I.4.1 | ADP J.1.6 | ADP K.8.2 STA: MI G1.8.1
TOP: 11-4 Example 1
KEY: volume of a rectangular prism | prism | problem solving | word problem | volume formulas | volume