

Practice Test Unit 2

Name: _____

PART I: Equations

Accelerated 7th Grade Math

Simplify.

1. $6y + 3x - x + 2$

2. $2(x - 5) + 7x$

#1 answer: _____

#2 answer: _____

3. $-3(x + 9) - 2 + 5x$

4. $22x - 7 - 2(x - 5) + 13x$

#3 answer: _____

#4 answer: _____

Solve. Don't forget to SHOW ALL OF YOUR WORK AND YOUR STEPS!

5. $a - 6 = -21$

6. $-6 - d = 7$

#5 answer: _____

#6 answer: _____

7. $6f = -54$

8. $-7 = -\frac{g}{2}$

#7 answer: _____

#8 answer: _____

9. $5 = -\frac{1}{3}h - 7$

10. $-2 + \frac{m}{4} = -9$

#9 answer: _____

#10 answer: _____

11. $-2 = \frac{3}{4}n - 8$

12. $3k - 8 = 16$

#11 answer: _____

#12 answer: _____

13. $2m + 12 + 6m = -4$

14. $-2(3x + 6) = 6$

#13 answer: _____

#14 answer: _____

15. $4x - (x - 6) = 30$

16. $4x - 1 = 6x - 5$

#15 answer: _____

#16 answer: _____

17. $6f - 4 + 7 - f = f - 18 - 3f$

18. $5 - (2g + 3) - 4 = 3(g + 4) + 2g$

#17 answer: _____

#18 answer: _____

For each of the following, create an equation and show your work for solving it.

19. Michele has a gift card for 48 free movie rentals from Blockbuster. If she went to Blockbuster 8 times, distinguish how many movies she got each time?

#19 equation: _____

#19 answer: _____

20. Mr. Cravotta and Mr. Roy decided to prepare for the school rollerblading race by rollerblading a certain number of miles each day. Mr. Cravotta practiced for 5 days. Mr. Roy attended a family reunion in East Lansing and could only practice for 3 days. Together, they rollerbladed 32 miles. Distinguish how many miles they rollerbladed per day?

#20 equation: _____

#20 answer: _____

21. The equation $a = \frac{V_f - V_i}{t}$ is used to find the acceleration "a" of an object, given the initial velocity "v_i", the final velocity "v_f" and the time. First, solve the equation for V_f then determine the final velocity of a car that accelerates at 5.4 m/s² for 5.2 seconds, and has an initial velocity is zero.

21 answer: _____

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PART II: Inequalities

Accelerated 7th Grade Math

For 22–24, determine whether each number is a solution of the given inequality $4z + 7 \geq 15$. Show your work for each. Write yes or no in the answer spot.

22. -3

23. 3

24. 6

#22. answer: _____

#23. answer: _____

#24. answer: _____

For 25–26, write an inequality to model each situation.

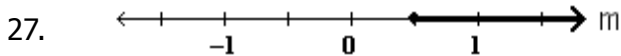
25. A student can take at most 6 classes.

#25. answer: _____

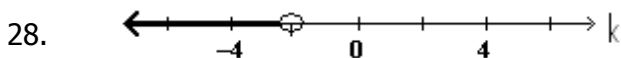
26. Elephants can drink up to 45 gallons at a time.

#26. answer: _____

For 27–28, write an inequality for each graph.



#27. answer: _____

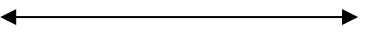


#28. answer: _____

For 29–34, solve each inequality and graph the solution. Show your work.

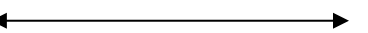
29. $x + 8 \leq 10$

#29. answer: _____

GRAPH: 


30. $-24 \geq 4y$

#30. answer: _____

GRAPH: 


31. $6w \geq -7w + 13$

#31. answer: _____

GRAPH: 

32. $9 - u > 3$

#32. answer: _____

GRAPH: 


33. $4 - 3(m + 3) + 4m \leq 15 - (m - 4)$

#33. answer: _____

GRAPH: 

34. $-6 < \frac{2x - 4}{2} \leq 6$

#34. answer: _____

GRAPH: 

For 35–36, write and solve an inequality. Show your work.

35. The DeWitt bank charges \$13.5 per apple pie during their annual fundraiser. Distinguish how many apple pies they have to sell to earn at least \$2,000?

#35 inequality: _____

#35 answer: _____

36. An elevator can safely hold no more than 2,500 pounds. A worker must use the elevator to take 45-lbs boxes to a storage area. If the worker weighs 165-lbs, distinguish how many boxes can he safely move at one time?

#36 inequality: _____

#36 answer: _____