Practice QUIZ!

Name: Key

Solving for a variable / Intro to inequalities

Solve for the specified variable.

1) $F = ma$ for m

$\frac{F}{a} = \frac{ma}{a}$

#1 answer: $m = \frac{F}{a}$

2) $A \cdot P = \frac{F}{A} \cdot A$ for F

#2 answer: $F = AP$

3) $t \cdot a = \frac{v_f - v_i}{t} \cdot t$ for v_f

$at = V_f - V_i$

$+V_i \quad +V_i$

#3 answer: $V_f = at + V_i$

4) $t \cdot s = \frac{d}{t} \cdot t$ for t

$\frac{t \cdot s}{s} = \frac{d}{s}$

#4 answer: $t = \frac{d}{s}$

5) $PV = nRT$ for R

$\frac{PV}{nT} = \frac{nRT}{nT}$

#5 answer: $R = \frac{PV}{nT}$

6) $3x - y = 8$ for x

$+y \quad +y$

$\frac{3x}{3} = \frac{y}{3} + \frac{8}{3}$

#6 answer: $x = \frac{y+8}{3}$ or $x = \frac{y}{3} + \frac{8}{3}$

7) The odometer in your car uses the equation $s = \frac{d}{t}$ to determine how far you've traveled. Solve the equation $s = \frac{d}{t}$ for "d". Then determine the distance a car has traveled if its average speed is 40 mi/hr and it's been traveling for 4 hours.

$t \cdot s = \frac{d}{t} \cdot t$

$d = \frac{40 mi}{\cancel{hr}} \cdot 4 \cancel{hrs}$

#7 equation: $d = st$

#7 answer: $d = 160 mi$

For 8–10, Circle the number (s) that are solutions to the given inequality?

8) $x > 5$ a) 5 b) 11 c) −6

(5) > 5 (11) > 5 (−6) > 5

NO Yes NO

9) $-9 \leq x$ a) −3 b) −9 d) 0

$-9 \leq (-3)$ $-9 \leq (-9)$ $-9 \leq (0)$

Yes Yes Yes

10) $2x - 3 \leq 11$ a) 0 b) 4 c) −4

$2(0) - 3 \leq 11$ $2(4) - 3 \leq 11$ $2(-4) - 3 \leq 11$

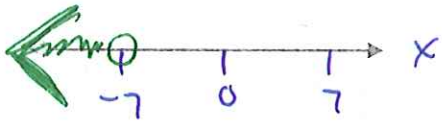
$0 - 3 \leq 11$ $8 - 3 \leq 11$ $-8 - 3 \leq 11$

$-3 \leq 11$ $5 \leq 11$ $-11 \leq 11$

Yes yes Yes

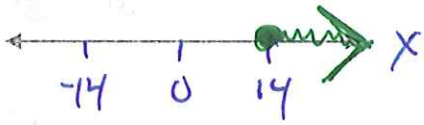
Graph the following inequalities:

11) $x < -7$



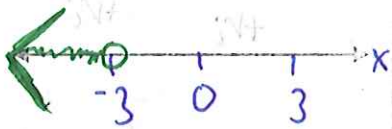
12) $14 \leq x$

$x \geq 14$



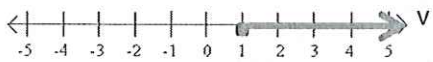
13) $-3 > x$

$x < -3$



For 14 & 15, write an inequality for each.

14)



#14 answer: $v \geq 1$ or $1 \leq v$

15) Mr. Roy is hoping at least 21 students earn an A on this quiz.

#15 answer: $A \geq 21$

A: # of students earning an "A"