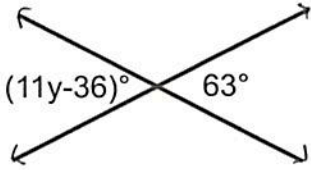
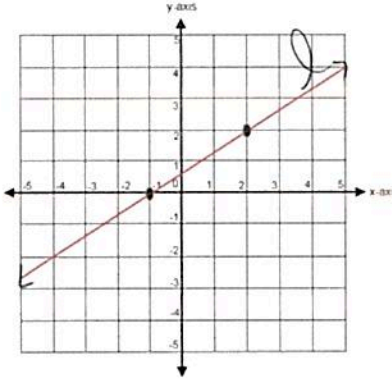
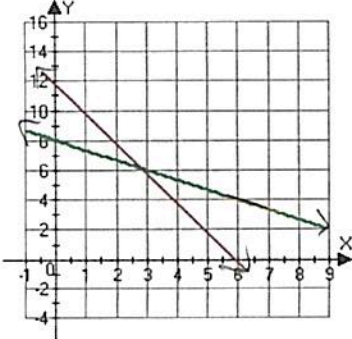


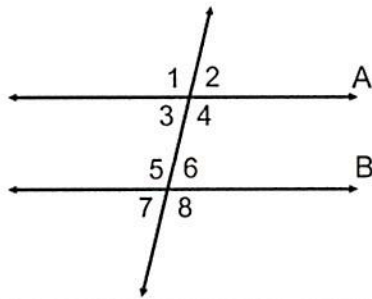
Review for 8R Midterm Part I's

<p>1) Which of the following set of ordered pairs is a function?</p> <p>a. $\{(1, -4), (-2, -5), (5, 5), (-2, 6)\}$ b. $\{(5, 2), (3, 2), (-1, 2), (-1, 4)\}$ c. $\{(-6, -1), (-3, -4), (0, -4), (-5, -4)\}$</p>	<p>2) What is the value of y in the diagram shown?</p> 
<p>3) What is the rate of change of line l shown in the accompanying diagram?</p> 	<p>4) Which of the following is a rational number?</p> <p>1) π 2) $\sqrt{56}$ 3) $\frac{3}{8}$ 4) 3.267839612...</p>
<p>5) Which is the equation for the line that passes through the points $(2,0)$ and $(0,3)$?</p>	<p>6) How many solutions does the equation $5x + 8 = 5x + 4$ have?</p>
<p>7) Which ordered pair is a solution to the system of equations shown below?</p> 	<p>8) Find the volume, in cubic inches, of a cone with a radius of 4 and a height of 9. Round to the nearest tenth of an inch.</p> $V = \frac{1}{3} \pi r^2 h$

9) Evaluate: $x^8 \cdot x \cdot x^{-2}$

10) Which of the following is 0.0000467 expressed in scientific notation?

11) Lines A and B are parallel lines. The $m \angle 4$ is 120° . Find the $m \angle 5$.



12) Solve for x if $x^3 = 729$

13) Which ordered pair is the solution of the system shown?

$$\begin{aligned}8x - 6y &= 10 \\3x + 6y &= 12\end{aligned}$$

14) The equation of a line is $y = -3x - 3$. Which point lies on the line?

- 1) $(-4, 9)$
- 2) $(0, 3)$
- 3) $(-2, 2)$
- 4) $(-3, 0)$

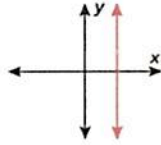
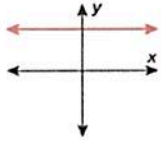
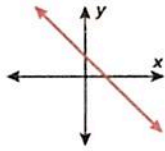
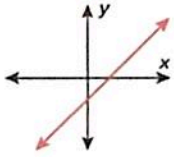
15) Solve for x:

$$3.2x + 5.7 = 1.7x + 10.2$$

16) What is the solution to the equation below?

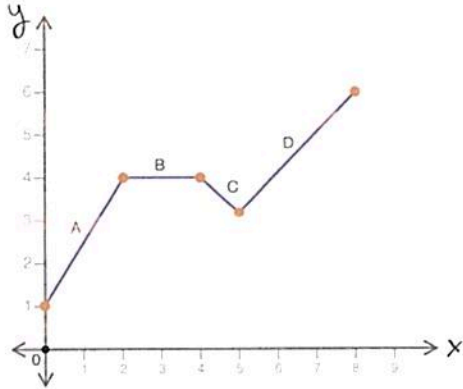
$$\frac{2}{3}(3x - 6) = 4$$

17) Which of the lines below has a slope of zero?

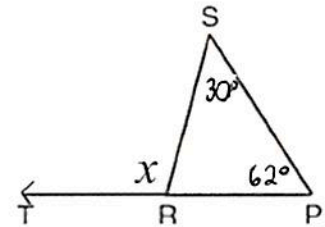


18) If two sides of a right triangle measure 12 inches and 16 inches, what is the length of the hypotenuse?

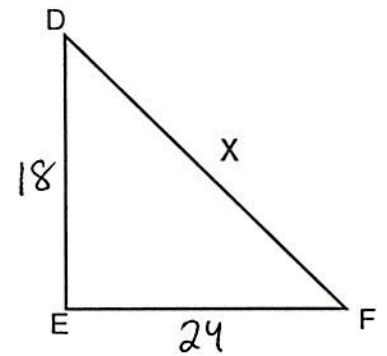
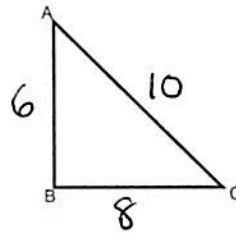
19) In which interval is the graph linear and increasing?



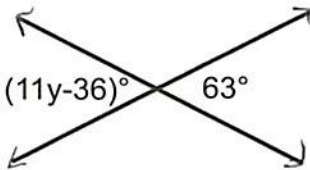
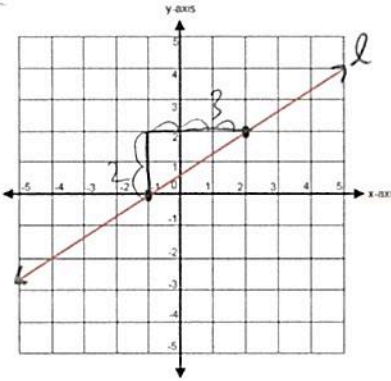
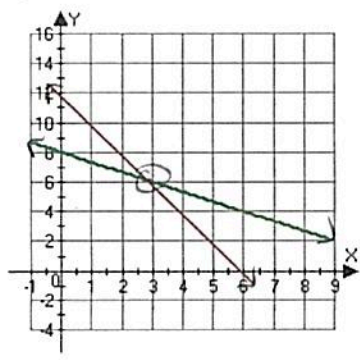
20) Find the value of x in the diagram shown.



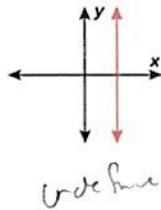
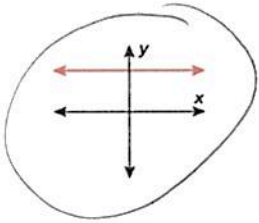
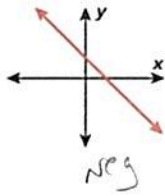
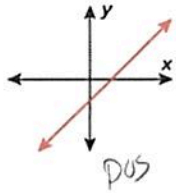
21) Find the value of x if $\triangle ABC$ is similar to $\triangle DEF$.



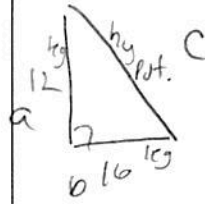
Review for 8R Midterm Part I's

<p>1) Which of the following set of ordered pairs is a function? \rightarrow x-values don't repeat</p> <p>a. $\{(1, -4), (-2, -5), (5, 5), (-2, 6)\}$ b. $\{(5, 2), (3, 2), (-1, 2), (-1, 4)\}$ c. $\{(-6, -1), (-3, -4), (0, -4), (-5, -4)\}$</p>	<p>2) What is the value of y in the diagram shown?</p>  <p>Vertical angles are = in measure</p> $11y - 36 = 63$ $\begin{array}{r} 11y - 36 = 63 \\ +36 \quad +36 \\ \hline 11y = 99 \\ \frac{11y}{11} = \frac{99}{11} \\ y = 9 \end{array}$
<p>3) What is the rate of change of line l shown in the accompanying diagram?</p> <p>$m = \frac{\text{rise}}{\text{run}}$</p> <p>$m = \frac{2}{3}$</p> <p>Rate of Change</p> 	<p>4) Which of the following is a rational number?</p> <p>1) π 2) $\sqrt{56}$ 3) $\frac{3}{8}$ 4) 3.267839612...</p> <p>Fractions are always rational</p>
<p>5) Which is the equation for the line that passes through the points (2,0) and (0,3)?</p> <p>$y = mx + b$</p> <p>$m = -\frac{3}{2}$ $b = 3$</p> <p>$y = -\frac{3}{2}x + 3$</p> <p>$m = \frac{y_2 - y_1}{x_2 - x_1}$ $m = \frac{3 - 0}{0 - 2}$ $m = -\frac{3}{2}$</p> <p>$y = mx + b$ $0 = -\frac{3}{2}(2) + b$ $0 = -3 + b$ $+3 \quad +3$ $3 = b$</p>	<p>6) How many solutions does the equation $5x + 8 = 5x + 4$ have?</p> <p>$-5x \quad -5x$</p> <p>$8 \neq 4$</p> <p>Zero/No solutions</p> <p>Always move the variables 1st</p>
<p>7) Which ordered pair is a solution to the system of equations shown below?</p> <p>intersection point</p> <p>$(3, 6)$</p> 	<p>8) Find the volume, in cubic inches, of a cone with a radius of 4 and a height of 9. Round to the nearest tenth of an inch.</p> <p>$V = \frac{1}{3}\pi r^2 h$</p> <p>$V = \frac{1}{3} \pi r^2 h \rightarrow$ use the π button</p> <p>$V = \frac{1}{3} \cdot \pi \cdot (4)^2 \cdot 9$ $V = \frac{1}{3} \cdot \pi \cdot 16 \cdot 9$</p> <p>$V = 150.8 \text{ in}^3$</p>

17) Which of the lines below has a slope of zero?



18) If two sides of a right triangle measure 12 inches and 16 inches, what is the length of the hypotenuse?



$$a^2 + b^2 = c^2$$

$$12^2 + 16^2 = c^2$$

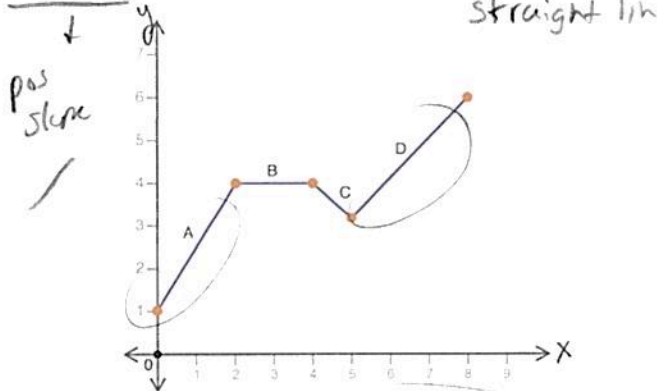
$$144 + 256 = c^2$$

$$\sqrt{400} = \sqrt{c^2}$$

$$C = 20 \text{ in}$$

2nd x^2

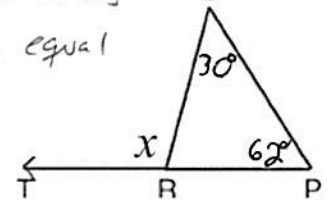
19) In which interval is the graph linear and increasing?



from $x=0$ to $x=2$ and
from $x=5$ to $x=8$

20) Find the value of x in the diagram shown.

The sum of the 2 non-adjacent interior angles is equal to the exterior angle.



$$x = 30 + 62$$

$$x = 92$$

$m\angle x = 92^\circ$

21) Find the value of x if $\triangle ABC$ is similar to $\triangle DEF$.

set up a proportion and cross multiply

$$\frac{6}{18} = \frac{10}{x}$$

$$\frac{6x}{6} = \frac{180}{6}$$

$x = 30$

