

Review for Math IA Chapter 2 Individual Test

1. Calculate the value of the following expression.

$$\sqrt{96^2 + 247^2} - 21$$

2. Evaluate the expression if $x = -5$ $y = 10$ and $z = 3$.

a. $3y(x + x^2 - z)$

- Evaluate the expression if $x = -5$ $y = 10$ and $z = 3$.

b. $xy + z$

Evaluate the expression if $x = -5$ $y = 10$ and $z = 3$.

c. $2\left(\frac{x+y+z}{3}\right)$

3. Simplify **without** negative exponents:

a. $\frac{5x^7}{20x^5}$

b. $(a^2b^5)(a^4b^3)$

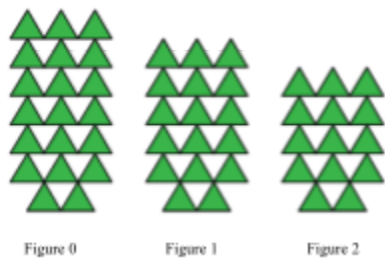
c. $(5x^5y^4)^3$

d. $5(6x^5)^0$

e. 3^{-5}

4. Write the **equation of the line** representing each situation (in $y=mx+b$)? (4 pts)

a.



Equation:

b.

x	-3	-2	-1	0	1	2
y	14	15	14	11	6	-1

Equation:

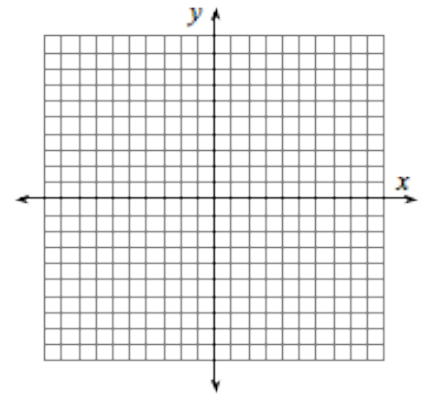
5. Read the information below about Lines A and B. If there is enough information to write only one linear equation for the situation, **then write the equation (in $y=mx+b$ form)**. If there is not enough information to write only one linear equation, tell what additional information is needed.

a. Line A passes through the point (5, 2).

If there is enough information to write only one linear equation for the situation, **then write the equation (in $y=mx+b$ form)**. If there is not enough information to write only one linear equation, tell what additional information is needed.

- b. Line B has a slope of 10 and a y-intercept of -17 .

6. Graph the equation $y = -\frac{2}{3}x + 8$ on graph paper.



7. What is the slope and the y-intercept of this equation... $y = -\frac{7}{9}x + 3$?
- a. What is the slope?
- b. What is the y-intercept?

8. Solve for x.

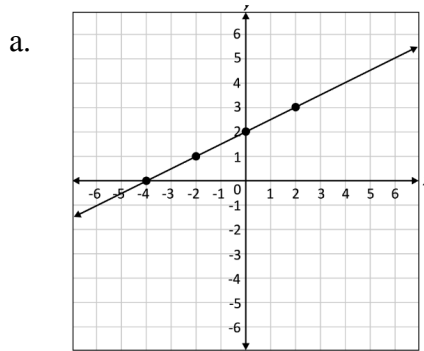
a. $6x - 2 = 40$

b. $8(x - 2) = -12 + x + 17$

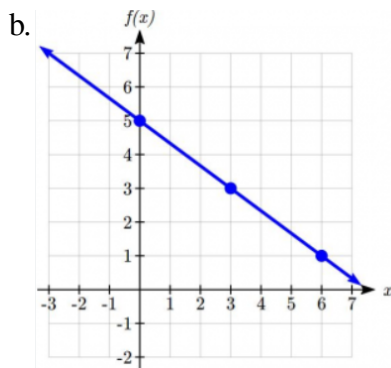
9. Calculate **the slope of the line** that goes through the points $(-3, 7)$ and $(12, -8)$.

10. Write the equation of the line that has a slope of 4 and passes through (-3,-10).

11. Write an equation (in $y=mx+b$ form) for each graph below.



Equation:



Equation: