



Required Math Summer Review Homework

Trigonometry, Probability & Statistics

Please complete the problems below and bring them with you the first day of class.

1) Operations with Fractions

Perform the given operation. Simplify:

a) $\frac{1}{7} + \frac{3}{7} =$

b) $\frac{2}{3} + \frac{3}{5} =$

c) $\frac{4}{5} \times \frac{2}{9} =$

d) $\frac{8}{9} \times \frac{3}{4} =$

e) $\frac{11}{12} - \frac{5}{12} =$

f) $\frac{7}{8} - \frac{1}{3} =$

g) $\frac{2}{3} \div \frac{1}{5} =$

h) $\frac{7}{12} \div \frac{3}{4} =$

2) Operations with Signed Numbers

Perform these computations:

a) $-8 + (-9) =$

b) $4 + (-10) =$

c) $-2 - 5 =$

d) $-3 - (-4) =$

e) $(-3)(-6) =$

f) $12(-1) =$

g) $\frac{-15}{-3} =$

h) $(-2)(-3)(7)(-1) =$

3) Absolute Value

Evaluate each of the following.

a) $|6| =$

b) $|-7| =$

c) $|-2| + |-5| =$

4) Order of Operations

Simplify each of the following:

a) $3 + 5^2 =$

b) $-2 + 3(4 - 1) =$

c) $2(8 - 5)^2 - |4 + 2(-3)| =$

5) Distributive Property

Multiply each of the following:

a) $4(3x - 5) =$

b) $-2a(3a + 7b) =$

c) $(4x + 3)(x + 5) =$

d) $(3x - 7y)(2x - 3y) =$

Factor completely:

e) $3x + 3y =$

f) $4a^3 - 3a^2 - 5a =$

g) $25m^3 - 10m^2 + 5m =$

6) Evaluating Expressions

If $a = 5$, $b = -3$ and $c = -2$, evaluate the following:

a) $a + 4c - b$

b) $-(a)^2$

c) $b^2 - 4ac$

7) Combining Like Terms

Simplify:

a) $3b + 4a - 7b + a$

b) $5a^2 - 3a + 2(6a - a^2)$

c) $15a - (3a - 4b) + 9(a - 2b)$

8) Solving Linear Equations and Inequalities

Solve the equation. Check your answer.

a) $\frac{3x+2}{5} = 7$

b) $5(x-6) = 9x-3$

c) $\frac{1}{2}x + \frac{3}{4} = \frac{2}{3}x$

Solve the given inequality. Graph your solution on a number line.

d) $7x - 3 \geq 11$

e) $-2(3x-1) + 2x < 10$

9) Literal Equations

Solve for the requested variable.

a) for b: $3(a + b) = c$

b) for h: $V = \frac{1}{3}Bh$

c) for w: $P = 2l + 2w$

10) The Coordinate Plane

Plot the following points. State in which quadrant or on which axis the point is found.

a) $(-6,1)$

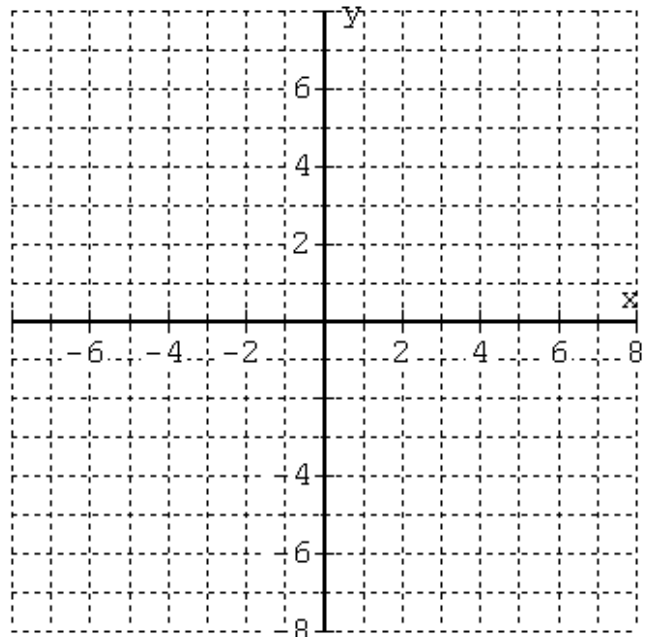
b) $(-3,-2)$

c) $(0,-1)$

d) $(2,5)$

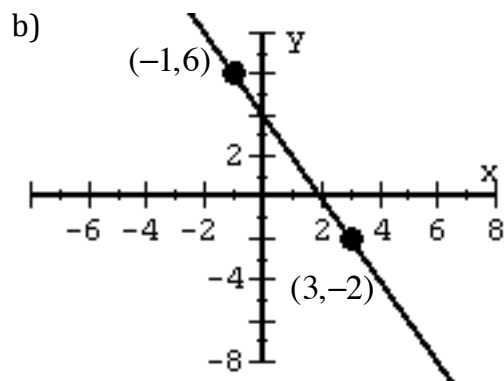
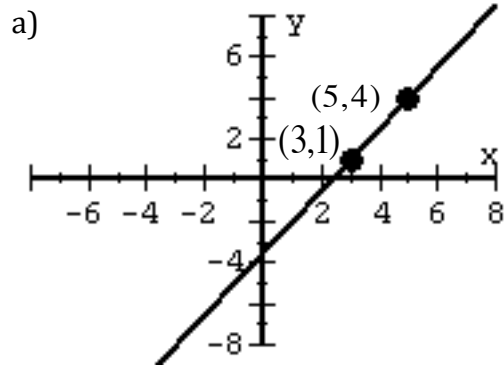
e) $(3,0)$

f) $(2,-4)$



11) Slope

Find the slope of the line containing the given points.



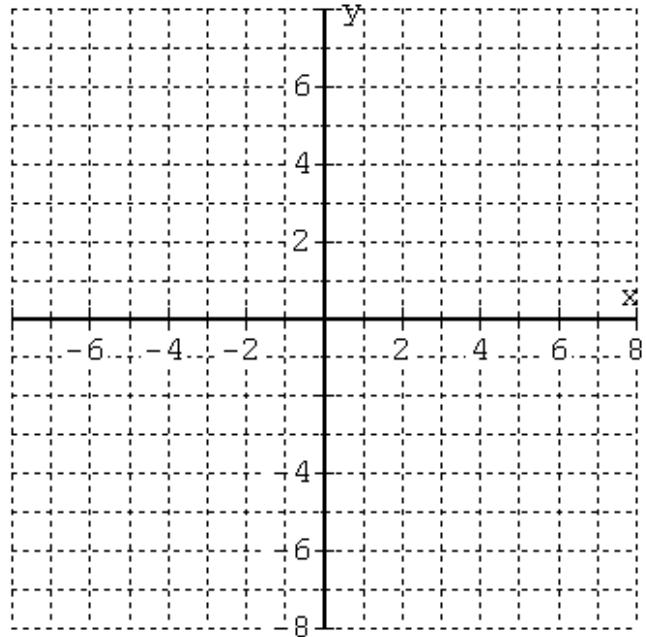
c) $(-4,5)$ and $(3,5)$

d) $(2,6)$ and $(2,-3)$

12) Linear Graphing

Graph the given linear equations by plotting points, using slope – intercept or by finding the x and y-intercepts.

a) $y = 2x + 3$



b) $2x + 3y = 6$

