

SHOW ALL WORK to receive full credit.

Simplify the exponents. (1 point each)

1. $(x^{-4})^{-7} =$ 2. $x^{-12} \cdot x^7 =$ 3. $\frac{x^8}{x^{10}} =$
 4. $(x^2)^{-4} =$ 5. $x^{-5} \cdot x^5 =$ 6. $\frac{x^{-3}}{x^{-7}} =$

Fractions: Perform the indicated operation. Answers must be left as proper fractions or mixed numbers. Answers must be reduced to lowest terms. (1 point each)

7. $5\frac{5}{8} \cdot 2\frac{2}{9} =$ 8. $5\frac{1}{4} - 2\frac{5}{6} =$
 9. $\frac{7}{16} + \frac{3}{4} =$ 10. $5\frac{1}{7} \div 1\frac{1}{14} =$

Solve the following equations. Fraction answers must be reduced to lowest terms, but may be left as either improper fractions or mixed numbers. (4 points)

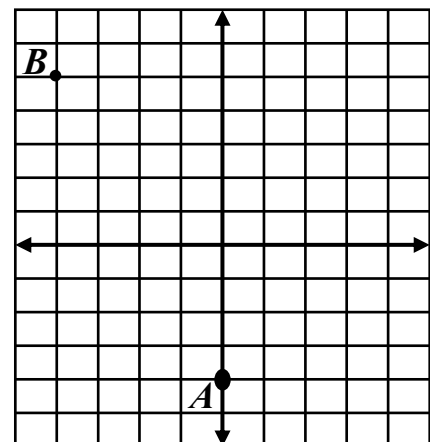
11. $-8(4x + 3) = 3(9 - 5x)$ 12. $9x - (-4) - 7x = 8 - (-6x) + 5$

Give the ordered pairs of each point. (1 point each)

13. A _____ 14. B _____

Graph and label each of the following ordered pairs on the grid to the right. (1 point each)

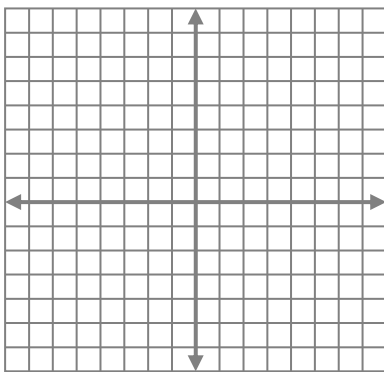
15. C (2, 6) 16. D(-3, -5)



Complete the domain-range tables, and graph the lines. (20 points)

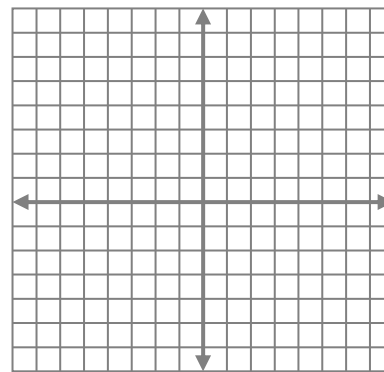
17.

| x | $y = \frac{3}{2}x - 1$ | y |
|-----|------------------------|-----|
| -4 | | |
| -2 | | |
| 0 | | |
| 2 | | |
| 4 | | |



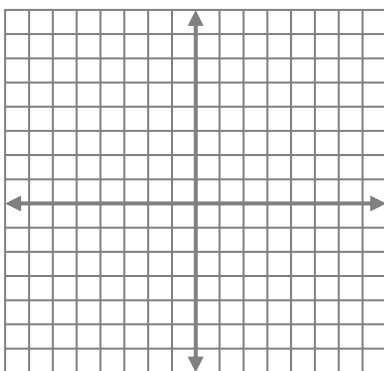
18.

| x | $y = -3x + 2$ | y |
|-----|---------------|-----|
| -2 | | |
| -1 | | |
| 0 | | |
| 1 | | |
| 2 | | |



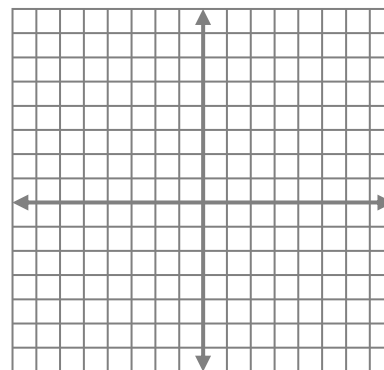
Plot the points, create a slope triangle, and determine the slope. Reduce to lowest terms. (4 points each)

19. $(-2, 7)$ and $(3, 4)$



slope: _____

20. $(-4, -2)$ and $(2, 8)$



slope: _____

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Simplify the exponents. (2 points each)

1. $(x^{-6})^{-8} =$

2. $x^4 \cdot x^{-15} =$

3. $\frac{x^{-8}}{x^{-14}} =$

Fractions: Perform the indicated operation. Answers must be left as proper fractions or mixed numbers. Answers must be reduced to lowest terms. (1 point each)

4. $3\frac{5}{8} + 2\frac{7}{8} =$

5. $4\frac{1}{4} - \frac{5}{6} =$

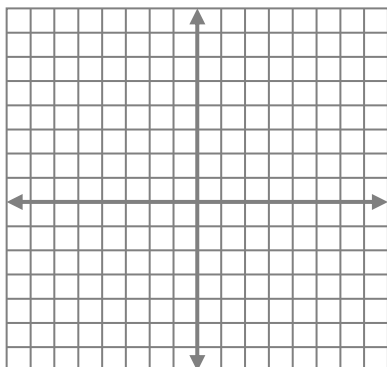
6. $\frac{5}{12} \cdot 1\frac{1}{15} =$

7. $1\frac{3}{4} \div 2\frac{5}{8} =$

Complete the domain-range tables, and graph the lines. (5 points per table, 3 points per graph)

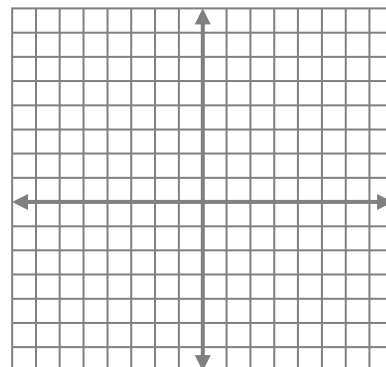
8.

| x | $y = -\frac{1}{2}x + 3$ | y |
|-----|-------------------------|-----|
| -4 | | |
| -2 | | |
| 0 | | |
| 2 | | |
| 4 | | |



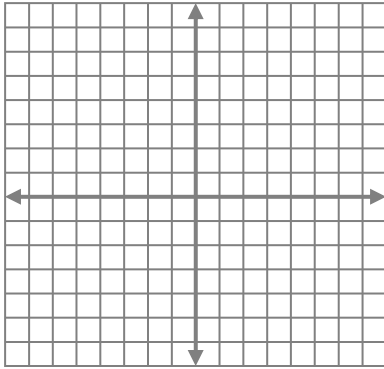
9.

| x | $y = 4x - 2$ | y |
|-----|--------------|-----|
| -2 | | |
| -1 | | |
| 0 | | |
| 1 | | |
| 2 | | |



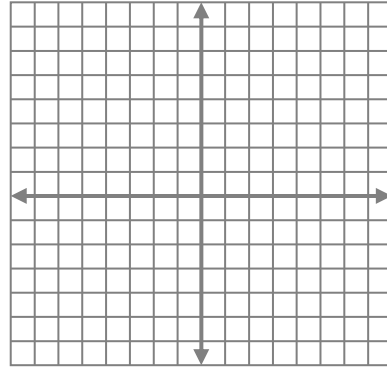
Plot the points, create a slope triangle, and determine the slope. Reduce to lowest terms. (4 points each)

10. $(-5, 2)$ and $(-3, -1)$



slope: _____

11. $(4, -3)$ and $(-4, -5)$



slope: _____

Using the formula, $m = \frac{y_2 - y_1}{x_2 - x_1}$, find the slope of the line that passes through the given points. (4 points each)

12. $(6, -1)$ and $(9, 4)$

13. $(0, 5)$ and $(4, 3)$

Solve the following equations. Fraction answers must be reduced to lowest terms, but may be left as either improper fractions or mixed numbers. (4 points each)

14. $6x - 7 + 5x + 2 = 4x + 3 - 2x + 1$

15. $-4(2x - 3) = 8x$