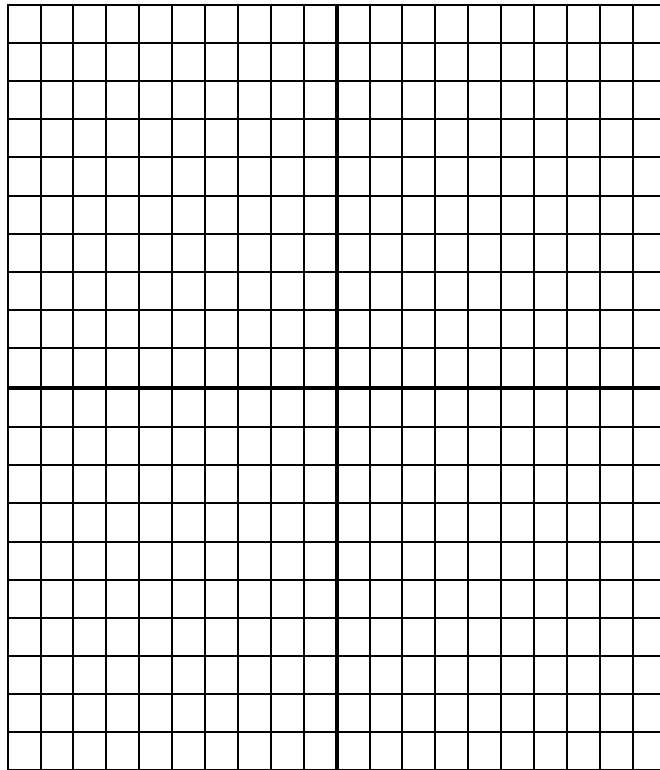


Course: MFM2P Gr. 10 AppliedLesson: 6-1Unit: Quadratic RelationsTopic: Prerequisite Skills

✚ *homework check:* none✚ *note:* Prerequisite Skills

Substituting values, integer skills as well as collecting like terms are always important skills needed and this is true in our quadratic relations unit. Likewise, graphing skills and finding x and y intercepts are still necessary. For example, graph each of the following being sure to label both the x and y intercepts.

a) $y = -2x + 5$



b) $y = \frac{3}{2}x - 1$

c)

$$2x + 3y = -6$$

$$3y = -6 - 2x$$

$$3y = -2x - 6$$

$$y = \frac{-2}{3}x - \frac{6}{3}$$

$$y = \frac{2}{3}x - 2$$

An algebraic term can be made of both numbers and letters. In this case, the number is called a numerical coefficient and the letter is called a variable.

One term – monomial

Two term – binomial

Three terms – trinomial

Polynomial – many terms, describes all expressions bigger than a trinomial

Important skills necessary for working with expression involve the collection of like term, distributive property and you exponent rules. For example, simplify each of the following expressions, then name the type of expression.

a)

$$\begin{aligned}4x + 3x^2 - 7 - 4x - x^2 + 3 &= \text{reorder to collect like terms} \\ &= 4x - 4x + 3x^2 - x^2 - 7 + 3 \\ &= 2x^2 - 4\end{aligned}$$

This expression has two terms making it a binomial.

b)

$$\begin{aligned}-4(2x + 3) &= \text{use distributive property} \\ &= -8x - 12\end{aligned}$$

This expression has two terms making it a binomial.

c)

$$\begin{aligned}2x(x^2 + 3x - 2) &= \text{use exponent rule for multiplying powers} \\ &= 2x^3 + 6x^2 - 4x\end{aligned}$$

This expression has three terms making it a trinomial.

✎ homework assignment: Lesson 6 - 1

Lesson 6 – 1: Prerequisite Skills**Mark (/42): _____****1. Simplify each of the following given $x = -2$, (2 marks each)**

a) $2x^2 + 3x - 1 =$

b) $x^2 - 3 =$

2. Complete the table of values given. (5 marks each)

a)

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

b)

x	$y = -x + 6$
-2	
-1	
0	
1	
2	

3. Carefully underline the numerical coefficient in each monomial. (2 marks)

a) $-5x$

b) $6x^2$

4. Carefully underline the variable in each monomial. (2 marks)

a) $-4a^5$

b) $\frac{-2}{5}y^3$

5. Multiply or divide as indicated. (8 marks)

a) $2(-3x) =$

b) $\frac{48x}{12} =$

c) $14x \div (-2x) =$

d) $\frac{-24x^2}{-8x} =$

6. Simplify each expression. (4 marks)

a) $2x + 6 - 4x + 8 =$

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

7. Expand each expression. (4 marks)

a) $2(x - 3) =$

b) $-2(x^2 - 3x - 1) =$

8. Square each term. Decimal answers will not be accepted. (8 marks)

a) $(-4)^2 =$

b) $(7x)^2 =$

c) $(-3x)^2 =$

d) $\left(\frac{2}{3}\right)^2 =$