

3.0 Prerequisite Skills1. Evaluate for $x = 2$ and $y = -1$

$$\begin{aligned}
 3x^2 - 4y + 2 - x^2 - 6 - y &= 3(2)^2 - 4(-1) + 2 - (2)^2 - 6 - (-1) \\
 &= 12 + 4 + 2 - 4 - 6 + 1 \\
 &= 9
 \end{aligned}$$

2. Recall like terms:Like terms: have the same variable (letter) raised to the same exponent

ie. $2x^2, -3x^2$ like terms
 $-4x, 123x$ like terms

$4y, 4x$ not like terms
 $7x^2, 7x^3$ not like terms

Remember.....You can collect like terms!!

Ex 1

Simplify $10x^2 - 4x + 1 - 5x^2 - 6 - x$

$$= 5x^2 - 5x - 5$$

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3. Solve:

a) $2x = 14$

$$\frac{2x}{2} = \frac{14}{2}$$

$$x = 7$$

b) $12 = -x + 3$

$$12 - 3 = -x$$

$$9 = -x$$

$$-9 = x$$

c) $-4x + 2 = 3x - 12$

$$2 = 3x - 12 + 4x$$

$$2 = 7x - 12$$

$$14 = 7x$$

$$\frac{14}{7} = x$$

$$2 = x$$

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4. Recall first differences:
State the slope and y-intercept

x	y
2	5
3	3
4	1
5	-1
6	-3

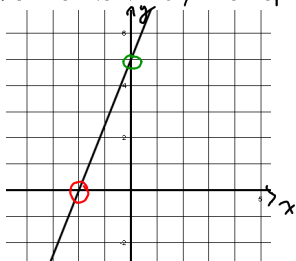
Slope of -2

x	y
0	9
1	7
2	5
3	3

y-intercept is 9

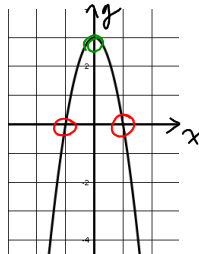
$(y = -2x + 9)$

5. State the x and y intercepts



x-int: -2

y-int: 5



x-int: +1, -1 or ±1

y-int: 3

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6. Make a table of values and Graph:

a) $y = -2x + 6$

x	y
0	6
1	4
2	2
3	0

x-int: 3

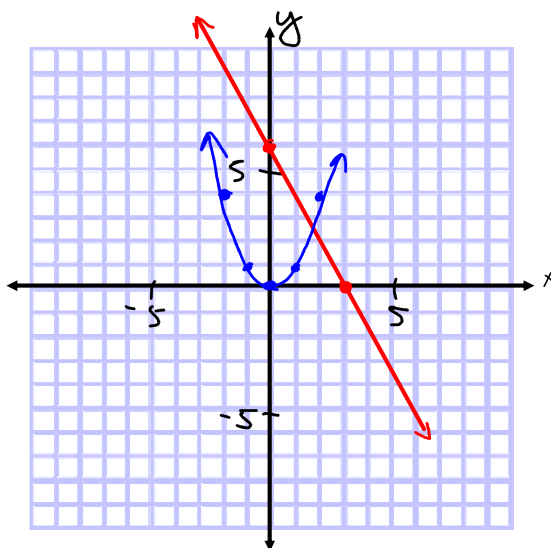
y-int: 6

b) $y = x^2$

x	y
-2	4
-1	1
0	0
1	1
2	4

x-int: 0

y-int: 0



7. Find the x and y intercepts for each graph

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Practice

p 166 # 4 - 7 bd, 10 bc, 11, 12

p 232 # 2bd, 7ab, 12

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