

**Lesson 1 and 2**

1. Calculate the value of each expression. Substitute the given value for the variable.

a) Given $x = 4$ , calculate: $2x + 3$	b) Given $y = 6$ , calculate: $4y - 5$	c) Given $a = 1$ , calculate: $3a + 2$
d) Given $m = 3$ , calculate: $6m - 4$	e) Given $n = 2$ , calculate: $2n + 3n$	f) Given $t = 5$ , calculate: $5t - 2t + 1$

2. Complete the table by substituting  $x = 1$  to  $6$  into each rule.

$y = 2x$ <table border="1"> <tr><th><math>x</math></th><th>1</th><th>2</th><th>3</th><th>4</th><th>5</th><th>6</th></tr> <tr><th><math>y</math></th><td></td><td></td><td></td><td></td><td></td><td></td></tr> </table>	$x$	1	2	3	4	5	6	$y$							$y = x + 3$ <table border="1"> <tr><th><math>x</math></th><th>1</th><th>2</th><th>3</th><th>4</th><th>5</th><th>6</th></tr> <tr><th><math>y</math></th><td></td><td></td><td></td><td></td><td></td><td></td></tr> </table>	$x$	1	2	3	4	5	6	$y$						
$x$	1	2	3	4	5	6																							
$y$																													
$x$	1	2	3	4	5	6																							
$y$																													
$y = 3x - 1$ <table border="1"> <tr><th><math>x</math></th><th>1</th><th>2</th><th>3</th><th>4</th><th>5</th><th>6</th></tr> <tr><th><math>y</math></th><td></td><td></td><td></td><td></td><td></td><td></td></tr> </table>	$x$	1	2	3	4	5	6	$y$							$y = 5 - x$ <table border="1"> <tr><th><math>x</math></th><th>1</th><th>2</th><th>3</th><th>4</th><th>5</th><th>6</th></tr> <tr><th><math>y</math></th><td></td><td></td><td></td><td></td><td></td><td></td></tr> </table>	$x$	1	2	3	4	5	6	$y$						
$x$	1	2	3	4	5	6																							
$y$																													
$x$	1	2	3	4	5	6																							
$y$																													

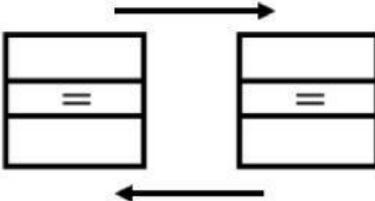
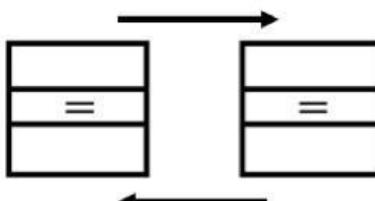
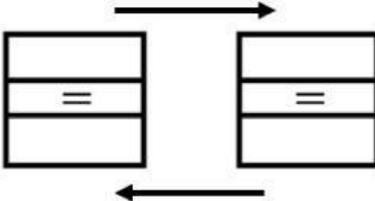
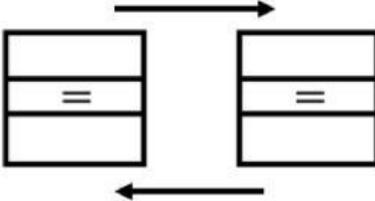
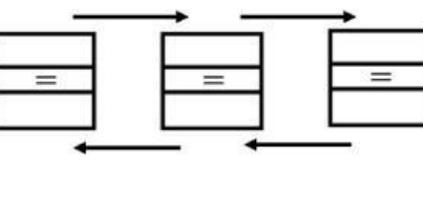
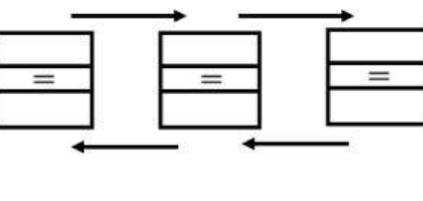
3. Identify components of algebraic expressions. List variables, coefficients, and constants.

<p>a) <math>4x + 5</math></p> <p>Variables:</p> <p>Coefficients:</p> <p>Constants:</p>	<p>b) <math>2y - 3</math></p> <p>Variables:</p> <p>Coefficients:</p> <p>Constants:</p>
<p>c) <math>7a + 2a - 1</math></p> <p>Variables:</p> <p>Coefficients:</p> <p>Constants:</p>	<p>d) <math>3t + 1 - t</math></p> <p>Variables:</p> <p>Coefficients:</p> <p>Constants:</p>

X =

### Lesson 3

#### 4. Solve equations using backtracking

a) $x + 3 = 7$ 	b) $2x = 12$ 	c) $x - 5 = 4$ 
d) $\frac{x}{3} = 6$ 	e) $4x - 2 = 10$ 	f) $2x + 8 = 14$ 

#### 5. Solve by inspection – Use pen and paper to **evaluate**.

a) $x + 2 = 6$  <p style="text-align: center;">X = <input type="text"/></p>	b) $x - 3 = 2$  <p style="text-align: center;">X = <input type="text"/></p>	c) $3x = 9$  <p style="text-align: center;">X = <input type="text"/></p>
d) $\frac{x}{2} = 4$  <p style="text-align: center;">X = <input type="text"/></p>	e) $3x + 8 = 17$  <p style="text-align: center;">X = <input type="text"/></p>	f) $5x - 5 = 10$  <p style="text-align: center;">X = <input type="text"/></p>

#### 6. Write and solve equations from word problems.

a) A number plus 5 equals 9	b) Double a number is 16
c) A number minus 3 is 10	d) A number divided by 2 is 7

e) Triple a number, subtract 4, equals 11

f) Two equal numbers add to 14