

1.  $-1 - 4$

1.  $-2 - 7$

1.  $-12 - 20$

1.  $-124 - 200$

2.  $-1 + 4$

2.  $-2 + 7$

2.  $-12 + 20$

2.  $-124 + 200$

3.  $1 + 4$

3.  $2 + 7$

3.  $12 + 20$

3.  $124 + 200$

4.  $1 - 4$

4.  $2 - 7$

4.  $12 - 20$

4.  $124 - 200$

5.  $-5 - 4$

5.  $-9 - 7$

5.  $-71 - 25$

5.  $-553 - 300$

6.  $-5 + 4$

6.  $-9 + 7$

6.  $-71 + 25$

6.  $-553 + 300$

7.  $5 + 4$

7.  $9 + 7$

7.  $71 + 25$

7.  $553 + 300$

8.  $5 - 4$

8.  $9 - 7$

8.  $71 - 25$

8.  $553 - 300$

9.  $-8 - 9$

9.  $-7 - 15$

9.  $-48 - 71$

9.  $-489 - 500$

10.  $-8 + 9$

10.  $-7 + 15$

10.  $-48 + 71$

10.  $-489 + 500$

Simplify using the operator

1.  $-1 - 4 + 5 - 9 + 8$

1.  $-1 + 5 - 6 - 7 + 8 - 9$

1.  $-9 + 8 - 7 + 6 + 1$

2.  $-1 + 4 + 5 - 9 - 8$

2.  $-1 - 5 - 6 + 7 + 8 - 9$

2.  $-9 + 8 + 7 + 6 - 1$

3.  $-(-2) + (-5) - (-2)$

3.  $-(-4) + (-11) - (-6)$

3.  $-(-7) + (-7) - (-7)$

4.  $-1 + (-2) - (-5) - (-2)$

4.  $-1 + (-5) - (-11) + (-9)$

4.  $-1 - 7 - (-3) - (-4)$

5.  $-9 + (-2) - (-5) - (-3)$

5.  $-2 + (-3) - (-9) + (-2)$

5.  $-1 - 2 - (-9) - 4$

Expand and simplify

[1.2]

6.  $3^2$

6.  $2^3$

6.  $5^2$

7.  $3^3$

7.  $2^2$

7.  $5^3$

8.  $-2^2$

8.  $-5^3$

8.  $-3^3$

9.  $-5^3$

9.  $-2^3$

9.  $-3^3$

10.  $(-5)^3$

10.  $(-2)^3$

10.  $(-3)^3$

11.  $(-5)^2$

11.  $(-2)^2$

11.  $(-3)^2$

12.  $-(-5)^2$

12.  $-(-2)^2$

12.  $-(-3)^2$

Evaluate

1.  $20 + 3(-2)(-1)$

1.  $25 + 2(2)(-2)$

1.  $30 + 3(-1)(2)$

2.  $20 - 3(-2)(-1)$

2.  $25 - 2(2)(-2)$

2.  $30 - 3(-1)(2)$

3.  $-12 + 3(-2)(-1)$

3.  $-15 + 2(2)(-2)$

3.  $-20 + 3(-1)(2)$

4.  $-12 - 3(-2)(-1)$

4.  $-15 - 2(2)(-2)$

4.  $-20 - 3(-1)(2)$

5.  $20 - 3(2)^2$

5.  $25 - 2(3)^2$

5.  $30 - 3(3)^2$

6.  $-20 - 3(-2)^2$

5.  $-25 - 2(-3)^2$

6.  $-30 - 3(-3)^2$

7.  $20 - 3(2)^2$

7.  $25 - 2(3)^2$

7.  $30 - 3(3)^2$

8.  $3(2)^3 - 3(2)^2$

8.  $2(3)^3 - 5(3)^2$

8.  $2(2)^3 - 5(2)^2$

Evaluate

9.  $-2(-2)^2 - 3(-2)^2$

9.  $-3(-1)^2 - 2(-2)^2$

9.  $-1(-2)^2 - 5(-2)^2$

10.  $-2(3)^2 - 2(-3)^2$

10.  $-3(2)^2 - 3(-3)^2$

10.  $-4(2)^2 - 3(-2)^2$

11.  $-4(3)^2 - 2(-3)^2$

11.  $-3(2)^2 - 1(-3)^2$

11.  $-4(-2)^2 - 3(2)^2$

12.  $-4(3)^2 + 2(-3)^2$

12.  $-3(2)^2 + 1(-3)^2$

12.  $-4(-2)^2 + 3(2)^2$

13.  $4(-2)^2 - 2(-3)^2$

13.  $3(-2)^2 - 1(-3)^2$

13.  $4(-2)^2 - 3(-2)^2$

**Unit I. Substitution and Simplifying**

[3.1]

Evaluate given:  $x = 2$ ,  $y = -2$ ,  $z = 3$ ,  $w = -3$ 

1.  $3x^3 - 2z^2$

1.  $4x^3 - 3z^2$

1.  $2x^3 - 4z^2$

2.  $-3x^3 - 3y^2$

2.  $-2x^3 - 2y^2$

2.  $-3x^3 - 2y^3$

3.  $-3y^3 - 3z^2$

3.  $-2y^3 - 2z^2$

3.  $-y^2 - 3z^3$

evaluate given:  $x = 2$ ,  $y = -2$ ,  $z = 3$ ,  $w = -3$

4.  $-3y^3 - w^3$

4.  $-2y^3 - 3w^2$

4.  $-y^3 - 2w^2$

5.  $-2z^2 - 2w^2$

5.  $-x^2 - w^3$

5.  $-3x^3 - 2z^3$

6.  $y^2 - 2x^2 - 2z^2$

6.  $-w^3 - z^2 - y^2$

6.  $-y^2 - 3y^2 + w^2$

Solve for  $y$  given  $x$ :

1.  $y = 2x^2 + 3x + 4, x = 1$     1.  $y = 3x^2 + 2x + 4, x = 1$     1.  $y = 3x^2 + 4x + 2, x = 1$

2.  $y = 2x^2 + 3x + 4, x = -1$     2.  $y = 3x^2 + 2x + 4, x = -1$     2.  $y = 3x^2 + 4x + 2, x = -1$

3.  $y = 2x^2 + 3x + 4, x = -2$     3.  $y = 3x^2 + 2x + 4, x = -2$     3.  $y = 3x^2 + 4x + 2, x = -2$



Solve for  $y$  given  $x$ :

[4.2]

1.  $y = -2x^2 + 3x + 4, x = 1$     1.  $y = -3x^2 + 2x + 4, x = 1$     1.  $y = -3x^2 + 4x + 2, x = 1$

2.  $y = -2x^2 + 3x + 4, x = -1$     2.  $y = -3x^2 + 2x + 4, x = -1$     2.  $y = -3x^2 + 4x + 2, x = -1$

3.  $y = -2x^2 + 3x + 4, x = -2$     3.  $y = -3x^2 + 2x + 4, x = -2$     3.  $y = -3x^2 + 4x + 2, x = -2$

Solve for  $y$  given  $x$ :

[4.3]

1.  $y = -2x^2 - 3x - 4, x = 1$     1.  $y = -3x^2 - 2x - 4, x = 1$     1.  $y = -3x^2 - 4x - 2, x = 1$

2.  $y = -2x^2 - 3x - 4, x = -1$     2.  $y = -3x^2 - 2x - 4, x = -1$     2.  $y = -3x^2 - 4x - 2, x = -1$

3.  $y = -x^2 + x - 10, x = -2$     3.  $y = -x^2 + x - 1, x = -2$     3.  $y = -x^2 + x - 5, x = -2$