| | | | |
|---|---|---|---|
| 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. $-8+8$ | 9. $-7+7$ | 9. $-48+48$ | 9. $-489+489$ |
| 10. $-8+9-2$ | 10. $-7+15-9$ | 10. $-48+71-30$ | 10. $-489+500-50$ |
| 11. $-8+9+2$ | 11. $-7+15+9$ | 11. $-48+71+30$ | 11. $-489+500+50$ |

**Unit I.** Integer Operations Part 2

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. $5^2$

6. $9^2$

7. $3^3$

7. $4^3$

7. $5^3$

8. $- 2^2$

8. $- 2^3$

8. $- 3^3$

9. $- 5^2$

9. $- 5^3$

9. $- 4^3$

10. $(- 5)^3$

10. $(- 2)^3$

10. $(- 3)^3$

11. $(- 5)^2$

11. $(- 2)^2$

11. $(- 3)^2$

12. $- (- 5)^2$

12. $- (- 2)^4$

12. $- (- 3)^3$

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

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

Substitution and Simplifying

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

**Unit I.** Substitution and Simplifying [4.1]

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.    $y = -x^2 + x - 5$, $x = -2$