Algebra 1: Problem Set 1 Arithmetic of signed numbers, Whole number exponents, Simplifying expressions , and Order of operations

Evaluate:

1. $-5-(-6)+(-3)$

2. $\frac{-5}{8}-\frac{2}{3}$

3. $\frac{4}{5}\div\left(-\frac{13}{15}\right)$

4. $4+6\div 2-2^4$

Simplify:

5. $6x^2-3[2x-x(2x+3)]$

6. $4x+3-2(x+4)+(2-x)$

7. $\frac{-20x^7}{-5x^3}$

8. $\frac{7a^2bc^3}{84ab^2c}$

9. $\left(3x^2y^3\right)^2$

10. $\left(\frac{m^2n^3}{m^3n}\right)^2$

Solutions to Odd Problems:

1.

$$-5-(-6)+(-3)$$
$$-5+6+(-3)$$
$$1+(-3)$$
$$-2$$

3.

$$\frac{4}{5}\div\left(-\frac{13}{15}\right)$$
$$\frac{4}{5}\cdot\left(-\frac{15}{13}\right)$$
$$-\frac{12}{13}$$

5.

$$6x^2-3[2x-x(2x+3)]$$
$$6x^2-3[2x-2x^2-3x]$$
$$6x^2-3[-2x^2-x]$$
$$6x^2+6x^2+3x$$
$$12x^2+3x$$

7.

$$\frac{-20x^7}{-5x^3}$$
$$4x^{7-3}$$
$$4x^4$$

9.

$$\left(3x^2y^3\right)^2$$
$$3^2(x^2)^2(y^3)^2$$
$$9x^4y^6$$

8. $\frac{ac^2}{12b}$ 10. $\frac{n^4}{m^2}$

Answer to Even Problems

2. $\frac{-31}{24}$ 4. -9 6. $x-3$