Practice exercise: Exponents and Order of Operations

A. Write in exponent form.

- **Eg: (1)(1)(1)**
  - 1^3

1. 8(8)8(8) = _____
2. (-3)(-3)(-3)(-3)(-3)(-3)(-3) = _____
3. $(w)(w)(w)(w)(w)(w)(w)(w)$ = _____
4. 110x110x110x110x110x110x110x110x110x110 = _____
5. $18 \bullet 18 \bullet 18 \bullet 18 \bullet 18 \bullet 18 \bullet 18$ = _____
6. $(f)(f)(f)(f)(f)(f)$ = _____
7. $a \bullet a \bullet a \bullet a \bullet a \bullet a \bullet a \bullet a$ = _____
8. $\left(\frac{3}{7}\right)\left(\frac{3}{7}\right)\left(\frac{3}{7}\right)\left(\frac{3}{7}\right)\left(\frac{3}{7}\right)\left(\frac{3}{7}\right)\left(\frac{3}{7}\right)\left(\frac{3}{7}\right)$ = _____
9. (-2.6)(-2.6)(-2.6)(-2.6)(-2.6)(-2.6)(-2.6) = _____
10. $(q)(q)(q)(q)(q)$ = _____

B. Evaluate.

- **Eg:** 2^4
  - $2^4 = 2 * 2 * 2 * 2 = 16$

1. $(-5)^6 =$ _____
2. $(11)^4 =$ _____
3. $(100)^5 =$ _____
4. $-6^7 =$ _____
5. $21^2 =$ _____
6. $\left(\frac{3}{5}\right)^4 =$ _____
7. $-4.8^3 =$ _____
8. $\left(-\frac{2}{7}\right)^2 =$ _____
9. $-3.77^0 =$ _____
10. $105^2 =$ _____

C. Evaluate

- **Eg: 5(4-2) – 2^3 ÷ 4**
  - **5(2) – 2^3 ÷ 4**

    5(2) – 8 ÷ 4

    10 – 8 ÷ 4

    10 – 2

    8

1. 200 – 46 * 3 = _____
2. 840 ÷ 12 + 57 = _____
3. 246 * (5^2) – 147 = _____
4. 568 + 2^7 ÷ 30 = _____
5. 159 * 7^2 + (252 ÷ 12) = _____
6. 456 ÷ 6 * 5^2 – 209 = _____
7. 35 * 20 - (284 – 249) = _____
8. 318 – 233 * (56 – 50) = _____
9. 639 ÷ 9 * 16 – 978 = _____
10. 6(-2^3) – $(-5)^2$ = _____

Answer Key
Practice exercise: Exponents and Order of Operations

A.

1. 8^4
2. $(-3)^7$
3. $(w)^8$
4. 110^{10}
5. 18^7
6. f^6
7. a^9
8. $\left(\frac{3}{7}\right)^8$
9. $(-2.6)^7$
10. $(-q)^5$

B.

1. 15 625
2. 14 641
3. $1x10^{10}$
4. -279 936
5. 441
6. $\frac{81}{625}$
7. -110.592
8. $\frac{4}{49}$
9. 1
10. 11 025

C.

1. 62
2. 127
3. 6 003
4. 572.27
5. 7 812
6. 1 691
7. 665
8. 920
9. 158
10. -73