

Expanded and Exponential Form

A) Express each of the following in expanded form.

1) $\left(-\frac{11}{12}\right)^3 =$ _____

2) $(-9)^5 =$ _____

3) $10^9 =$ _____

4) $(-16)^2 =$ _____

5) $(1.4)^4 =$ _____

6) $7^6 =$ _____

B) Express each of the following in exponential form.

1) $(-2.3) \times (-2.3) \times (-2.3) =$ _____

2) $8 \times 8 \times 8 \times 8 \times 8 \times 8 \times 8 =$ _____

3) $\frac{2}{3} \times \frac{2}{3} \times \frac{2}{3} \times \frac{2}{3} =$ _____

4) $(-15) \times (-15) =$ _____

5) $20 \times 20 \times 20 \times 20 \times 20 \times 20 \times 20 \times 20 =$ _____

6) $18 \times 18 \times 18 \times 18 \times 18 =$ _____

Expanded and Exponential Form

Answer key

A) Express each of the following in expanded form.

$$1) \left(-\frac{11}{12}\right)^3 = \underline{\left(-\frac{11}{12}\right) \times \left(-\frac{11}{12}\right) \times \left(-\frac{11}{12}\right)}$$

$$2) (-9)^5 = \underline{(-9) \times (-9) \times (-9) \times (-9) \times (-9)}$$

$$3) 10^9 = \underline{10 \times 10 \times 10 \times 10 \times 10 \times 10 \times 10 \times 10 \times 10}$$

$$4) (-16)^2 = \underline{(-16) \times (-16)}$$

$$5) (1.4)^4 = \underline{1.4 \times 1.4 \times 1.4 \times 1.4}$$

$$6) 7^6 = \underline{7 \times 7 \times 7 \times 7 \times 7 \times 7}$$

B) Express each of the following in exponential form.

$$1) (-2.3) \times (-2.3) \times (-2.3) = \underline{(-2.3)^3}$$

$$2) 8 \times 8 \times 8 \times 8 \times 8 \times 8 \times 8 = \underline{8^7}$$

$$3) \frac{2}{3} \times \frac{2}{3} \times \frac{2}{3} \times \frac{2}{3} = \underline{\left(\frac{2}{3}\right)^4}$$

$$4) (-15) \times (-15) = \underline{(-15)^2}$$

$$5) 20 \times 20 \times 20 \times 20 \times 20 \times 20 \times 20 \times 20 = \underline{20^8}$$

$$6) 18 \times 18 \times 18 \times 18 \times 18 = \underline{18^5}$$