

Exercise 17**Radicals and Exponents** Evaluate each expression.

(a) -2^6

(b) $(-2)^6$

(c) $\left(\frac{1}{5}\right)^2 \cdot (-3)^3$

Solution

Evaluate these expressions.

$$-2^6 = -2 \cdot 2 \cdot 2 \cdot 2 \cdot 2 \cdot 2 = -64$$

$$(-2)^6 = (-1)^6(2)^6 = (1)(64) = 64$$

$$\left(\frac{1}{5}\right)^2 \cdot (-3)^3 = \left(\frac{1^2}{5^2}\right) (-1)^3(3)^3 = \left(\frac{1}{25}\right) (-1)(27) = -\frac{27}{25}$$