

Chapter 2 Practice: Evaluating Expressions with Integers

$$\textcircled{1} (-8) + (-6) = \boxed{-14}$$

$$\textcircled{2} (-8) + 12 = \boxed{4}$$

$$\textcircled{3} -10 + 12 = \boxed{2}$$

$$\textcircled{4} -4 + 0 = \boxed{-4}$$

$$\textcircled{5} -4 + (-7) = \boxed{-11}$$

$$\textcircled{6} 12 + (-4) = \boxed{8}$$

$$\textcircled{7} -6 - 8 = \boxed{-14}$$

$$\textcircled{8} (-8) - 10 = \boxed{-18}$$

$$\textcircled{9} -12 - (-6) = \boxed{-6}$$

$$\textcircled{10} (-8) - (-6) = \boxed{-2}$$

$$\textcircled{11} 10 - (-8) = \boxed{18}$$

$$\textcircled{12} -6 - 10 = \boxed{-16}$$

$$\textcircled{13} (-4)(-6) = \boxed{24}$$

$$\textcircled{14} (3)(-4) = \boxed{-12}$$

$$\textcircled{15} (2)(-6)(3) = \boxed{-36}$$

$$\textcircled{16} -2(-6^2) = \boxed{-72}$$

$$\textcircled{17} (-5)(3)(-4) = \boxed{60}$$

$$\textcircled{18} (-10)(-6)(-4) = \boxed{-240}$$

$$\textcircled{19} (-12)(3)(-4) = \boxed{144}$$

$$\textcircled{20} (-6)(3)(-4) = \boxed{72}$$

$$\textcircled{21} (-4)^2 = \boxed{16}$$

$$\textcircled{22} \frac{-36}{4} = \boxed{-9}$$

$$\textcircled{23} -48 \div (-3) = \boxed{16}$$

$$\textcircled{24} \frac{-36}{(4)(-3)} = \frac{-36}{-12} = \boxed{3}$$

$$\textcircled{25} -36^2 \div 4 =$$

$$1296 \div 4 = \boxed{324}$$

$$\textcircled{26} \frac{-36}{-3^2} = \frac{-36}{9} = \boxed{-4}$$

$$\textcircled{27} (-36)(-3) \div 4$$

$$108 \div 4 = \boxed{27}$$

$$\textcircled{28} \frac{-36^2}{(4)(-3)} = \frac{1296}{-12} = \boxed{-108}$$

$$\textcircled{29} \frac{-100}{4} = \boxed{-25}$$

$$\textcircled{30} \frac{-36^2}{-3^2} = \frac{1296}{9} = \boxed{144}$$

Chapter 8: Factoring Expressions with Variables

$$[144] = (4 \cdot 3)(2 \cdot 3) \quad (1)$$

$$[36] = (4 \cdot 3)(3 \cdot 3) \quad (2)$$

$$[9] = 3^2 \quad (3)$$

$$[P \cdot Q] = \frac{P \cdot Q}{P} \quad (4)$$

$$[16] = (2 \cdot 2) \cdot 2 \cdot 2 \quad (5)$$

$$[8] = \frac{2 \cdot 2 \cdot 2}{2} = \frac{2 \cdot 2}{(2)} \quad (6)$$

$$= 2 \cdot 2 \quad (7)$$

$$[288] = 2^5 \cdot 3^2 \quad (8)$$

$$[12] = \frac{2 \cdot 2 \cdot 2 \cdot 3}{2} = \frac{2 \cdot 2 \cdot 3}{2} \quad (9)$$

$$= 2 \cdot 3 \quad (10)$$

$$[48] = 2^4 \cdot 3 \quad (11)$$

$$[81] = \frac{3 \cdot 3 \cdot 3 \cdot 3}{3} = \frac{3 \cdot 3 \cdot 3}{(3)} \quad (12)$$

$$[36] = \frac{2 \cdot 2 \cdot 3 \cdot 3}{2} = \frac{2 \cdot 3 \cdot 3}{2} \quad (13)$$

$$[144] = \frac{2 \cdot 2 \cdot 2 \cdot 2 \cdot 3 \cdot 3}{2} = \frac{2 \cdot 2 \cdot 2 \cdot 3 \cdot 3}{2} \quad (14)$$

$$= (2 \cdot 2) \cdot (3 \cdot 3) \quad (15)$$

$$[4] = 2 \cdot 2 \quad (16)$$

$$[8] = 2 \cdot 2 \cdot 2 \quad (17)$$

$$[12] = 2 \cdot 2 \cdot 3 \quad (18)$$

$$[18] = 2 \cdot 3 \cdot 3 \quad (19)$$

$$[24] = 2 \cdot 2 \cdot 2 \cdot 3 \quad (20)$$

$$[36] = 2 \cdot 2 \cdot 3 \cdot 3 \quad (21)$$

$$[48] = 2 \cdot 2 \cdot 2 \cdot 2 \cdot 3 \quad (22)$$

$$[64] = 2 \cdot 2 \cdot 2 \cdot 2 \cdot 2 \cdot 2 \quad (23)$$

$$[72] = 2 \cdot 2 \cdot 2 \cdot 3 \cdot 3 \quad (24)$$

$$[90] = 2 \cdot 3 \cdot 3 \cdot 5 \quad (25)$$

$$[108] = 2 \cdot 2 \cdot 2 \cdot 3 \cdot 3 \quad (26)$$

$$[144] = 2 \cdot 2 \cdot 2 \cdot 2 \cdot 3 \cdot 3 \quad (27)$$

$$[180] = 2 \cdot 2 \cdot 3 \cdot 3 \cdot 5 \quad (28)$$

$$[288] = 2 \cdot 2 \cdot 2 \cdot 2 \cdot 2 \cdot 2 \cdot 3 \quad (29)$$

$$[360] = 2 \cdot 2 \cdot 2 \cdot 3 \cdot 3 \cdot 5 \quad (30)$$

$$[432] = 2 \cdot 2 \cdot 2 \cdot 2 \cdot 2 \cdot 3 \cdot 3 \quad (31)$$

$$[576] = 2 \cdot 2 \cdot 2 \cdot 2 \cdot 2 \cdot 2 \cdot 3 \cdot 3 \quad (32)$$