

Chapter 2 Test

1)

a)
$$\begin{aligned} & -8 + (-2 + 51) \\ & = (-8 + -2) + 51 \\ & = -10 + 51 \\ & = 41 \end{aligned}$$

b)
$$\begin{aligned} & (9 - 5) \cdot 6 \\ & = 9 \cdot (5 - 6) \\ & = 9 \cdot 30 \\ & = 270 \end{aligned}$$

c)
$$\begin{aligned} & (9 + -73) + 73 \\ & = 9 + (-73 + 73) \\ & = 9 + 0 \\ & = 9 \end{aligned}$$

3)

a)
$$\begin{aligned} & \sqrt{16 - 7} + 3 \\ & = \sqrt{25} + 3 \\ & = 5 + 3 \\ & = 8 \end{aligned}$$

b)
$$\begin{aligned} & (12 - 9 \div 3)^2 \\ & = (12 - 3)^2 \\ & = (9)^2 \\ & = 81 \end{aligned}$$

c)
$$\begin{aligned} & (-2)^4 - \sqrt{4} \cdot 6 \\ & = 16 - \sqrt{4} \cdot 6 \\ & = 16 - 2 \cdot 6 \\ & = 16 - 12 \\ & = 4 \end{aligned}$$

5)

a)
$$\begin{aligned} & y = 5 \cdot x + 6 \\ & y = 5 \cdot (3) + 6 \\ & y = 15 + 6 \\ & y = 21 \end{aligned}$$

b)
$$\begin{aligned} & A = \frac{1}{2} \cdot b \cdot h \\ & A = \frac{1}{2} \cdot (4 \text{ cm}) \cdot (10 \text{ cm}) \\ & A = 20 \text{ cm}^2 \end{aligned}$$

7) $A = P(1 + r t)$
 $A = P + P r t$
 $A = P + P r t$

9) LENGTH = WIDTH + 135

a) $P = 2 \text{ LENGTH} + 2 \text{ WIDTH}$
 $P = 2(w + 135) + 2w$
 $P = 2w + 270 + 2w$
 $P = 4w + 270$

b) $P = 4(225 \text{ ft}) + 270 = 1170 \text{ ft}$

11)

13) RISE = $3 -^{-}5 = 3 +^{+}5 = 8$
 RUN = $5 -^{-}1 = 5 +^{+}1 = 6$

$$d = \sqrt{\text{RISE}^2 + \text{RUN}^2}$$

$$d = \sqrt{(8)^2 + (6)^2}$$

$$d = \sqrt{64 + 36}$$

$$d = \sqrt{100}$$

$$d = 10$$

15)

<i>m</i> (long distance minutes)	<i>C</i> (Cost in \$)
0	4.95
20	6.35
40	7.75
60	9.15
80	10.55