

## EXERCISE 6.3

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## 1. Find

(a)  $35 - (20)$

(b)  $72 - (90)$

(c)  $(-15) - (-18)$

(d)  $(-20) - (13)$

(e)  $23 - (-12)$

(f)  $(-32) - (-40)$

**Solutions:**

(a)  $35 - (20)$

$= 35 - 20$

$= 15$

(b)  $72 - (90)$

$= 72 - 90$

$= -18$

(c)  $(-15) - (-18)$

$= -15 + 18$

$= 3$

(d)  $(-20) - (13)$

$= -20 - 13$

$= -33$

(e)  $23 - (-12)$

$= 23 + 12$

$= 35$

(f)  $(-32) - (-40)$

$= -32 + 40$

$$= 8$$

2. Fill in the blanks with  $>$ ,  $<$  or  $=$  sign.

(a)  $(-3) + (-6)$  \_\_\_\_\_  $(-3) - (-6)$

(b)  $(-21) - (-10)$  \_\_\_\_\_  $(-31) + (-11)$

(c)  $45 - (-11)$  \_\_\_\_\_  $57 + (-4)$

(d)  $(-25) - (-42)$  \_\_\_\_\_  $(-42) - (-25)$

**Solutions:**

(a)  $(-3) + (-6) = -9$

$$(-3) - (-6) = -3 + 6 = 3$$

$$-9 < 3$$

Therefore,  $(-3) + (-6) < (-3) - (-6)$

(b)  $-21 - (-10) = -21 + 10 = -11$

$$-31 + (-11) = -42$$

$$-11 > -42$$

Therefore,  $(-21) - (-10) > (-31) + (-11)$

(c)  $45 - (-11) = 45 + 11 = 56$

$$57 + (-4) = 57 - 4 = 53$$

$$56 > 53$$

Therefore,  $45 - (-11) > 57 + (-4)$

(d)  $(-25) - (-42) = -25 + 42 = 17$

$$-42 - (-25) = -42 + 25 = -17$$

$$17 > -17$$

Therefore,  $(-25) - (-42) > (-42) - (-25)$

3. Fill in the blanks.

(a)  $(-8) +$  \_\_\_\_\_  $= 0$

(b)  $13 +$  \_\_\_\_\_  $= 0$

(c)  $12 + (-12) =$  \_\_\_\_\_

$$(d) (-4) + \underline{\quad} = -12$$

$$(e) \underline{\quad} - 15 = -10$$

**Solutions:**

$$(a) (-8) + 8 = 0$$

$$(b) 13 + (-13) = 0$$

$$(c) 12 + (-12) = 0$$

$$(d) (-4) + (-8) = -12$$

$$(e) 5 - 15 = -10$$

**4. Find**

$$(a) (-7) - 8 - (-25)$$

$$(b) (-13) + 32 - 8 - 1$$

$$(c) (-7) + (-8) + (-90)$$

$$(d) 50 - (-40) - (-2)$$

**Solutions:**

$$(a) (-7) - 8 - (-25) = -7 - 8 + 25$$

$$= -15 + 25$$

$$= 10$$

$$(b) (-13) + 32 - 8 - 1 = -13 + 32 - 8 - 1$$

$$= 32 - 22$$

$$= 10$$

$$(c) (-7) + (-8) + (-90) = -7 - 8 - 90$$

$$= -105$$

$$(d) 50 - (-40) - (-2) = 50 + 40 + 2$$

$$= 92$$