

# Chapter 2 (Operations with Integers)

## Bringing It All Together #1

### Vocabulary Check

Define the following vocabulary words:

1) Absolute Value: \_\_\_\_\_

2) Quadrant: \_\_\_\_\_

State whether the statement is *true* or *false*.

If *false*, replace the underlined word or number to make a true sentence.

3) Two numbers with the same absolute values but different signs are opposites. \_\_\_\_\_

4) A positive number is a number less than zero. \_\_\_\_\_

5) Numbers like -6 and -0.5 examples of integers. \_\_\_\_\_

6) The set of quadrants includes positive whole numbers, their opposites, and zero. \_\_\_\_\_

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### 2-1 Integers and Absolute Value (pp. 61-66)

Compare the integers using  $<$ ,  $>$ , or  $=$

7)  $5$  \_\_\_\_\_  $-5$

8)  $|16|$  \_\_\_\_\_  $|-14|$

9)  $7$  \_\_\_\_\_  $|-7|$

10)  $-3$  \_\_\_\_\_  $1$

11)  $-14$  \_\_\_\_\_  $-22$

12)  $0$  \_\_\_\_\_  $|-5|$

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### 2-2 Adding Integers (pp. 69-74)

Find each sum.

13)  $-5 + -1 =$  \_\_\_\_\_

14)  $-6 + 10 =$  \_\_\_\_\_

15)  $2 + 8 + -3 =$  \_\_\_\_\_

16)  $-7 + 5 + -4 =$  \_\_\_\_\_

17)  $-12 + 6 + -5 =$  \_\_\_\_\_

18)  $-9 + 3 + -3 + 4 + 5 + -6 + 12 =$  \_\_\_\_\_

Name \_\_\_\_\_ Date \_\_\_\_\_ Pd \_\_\_\_\_

## 2-3 Subtracting Integers (pp. 76-80)

Find each difference.

19)  $7 - 13 =$  \_\_\_\_\_

20)  $8 - -3 =$  \_\_\_\_\_

21)  $-4 - 6 =$  \_\_\_\_\_

22)  $-1 - -4 =$  \_\_\_\_\_

23)  $3 - 5 - -2 - 8 - 6 - -7 =$  \_\_\_\_\_

24)  $-12 - 11 - -13 - 5 - -14 - 10 =$  \_\_\_\_\_

## 2-4 Multiplying Integers (pp. 83-88)

Find each product.

25)  $-2 \times 3 =$  \_\_\_\_\_

26)  $-7(-9) =$  \_\_\_\_\_

27)  $(-7)^2 =$  \_\_\_\_\_

28)  $3 \times -4 \times 2 \times -5 \times (-1)^5 =$  \_\_\_\_\_

29)  $-1 \times 5 \times -2 \times 3 \times -1 =$  \_\_\_\_\_

30)  $-2 \times -2 \times -2 \times -2 \times 2 =$  \_\_\_\_\_

## 2-5 Dividing Integers (pp. 90-95)

Find each quotient.

31)  $-16 \div -4 =$  \_\_\_\_\_

32)  $170 \div -10 =$  \_\_\_\_\_

33)  $-56 \div -8 =$  \_\_\_\_\_

34)  $\frac{3}{4} \div -0.75 =$  \_\_\_\_\_

35)  $(42 \div -7) \div (-9 \div -3) =$  \_\_\_\_\_

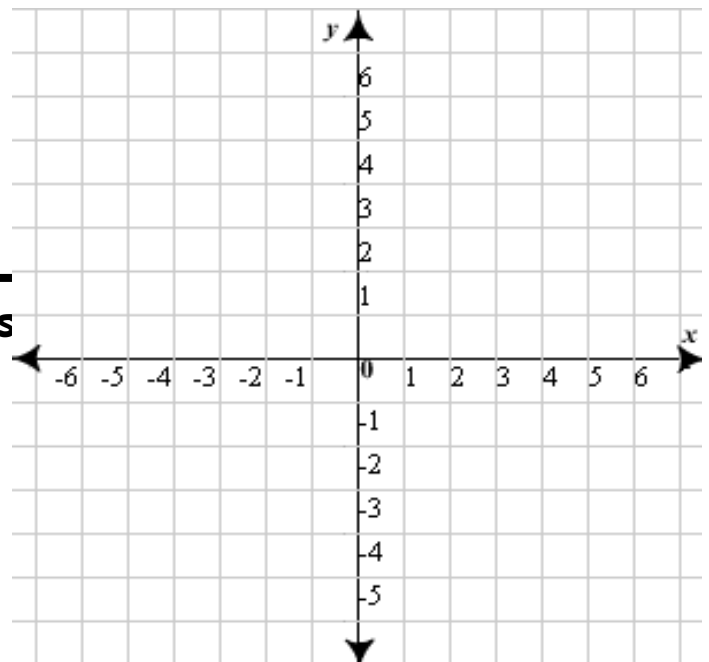
36)  $(-50 \div -10) \div (-35 \div 7) =$  \_\_\_\_\_

## (pp. 96-100) 2-6 Graphing In 4 Quadrants

Graph and label each point on a coordinate plane. Name the quadrant in which each point is located.

37) M (-3, 3) \_\_\_\_\_ 38) A (5, 2) \_\_\_\_\_

39) T (-1, -4) \_\_\_\_\_ 40) H (2, 0) \_\_\_\_\_



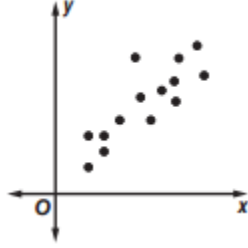
Name \_\_\_\_\_ Date \_\_\_\_\_ Pd \_\_\_\_\_

Tell whether each scatter plot shows a positive, negative, or no relationship.

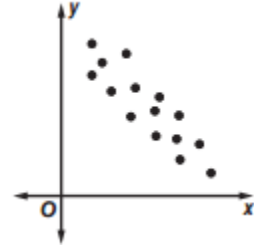
41) \_\_\_\_\_



42) \_\_\_\_\_

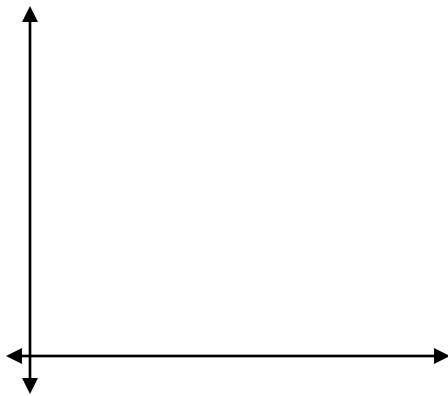


43) \_\_\_\_\_



**SCIENCE-** Scientists believe there may be a relationship between temperatures and the number of chirps produced by crickets. The table gives the temperature and the number of chirps per minute for several cricket samples.

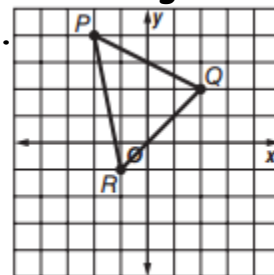
44) Make a scatter plot for the data



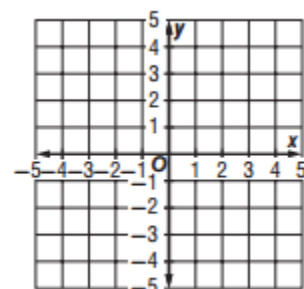
Temperature (°F)	Chirps/min
71	138
68	97
75	152
80	158
60	81
75	155
84	165

45) Does there appear to be a relationship between temperatures and chirps? If so, what type of relationship is there?

46) Graph & Find the coordinates of the vertices of the image of  $\triangle PQR$  translated 3 units to the right and 4 units down.



47) The vertices of figure  $STUV$  are  $S(-3, 2)$ ,  $T(-2, 4)$ ,  $U(3, 3)$ , and  $V(2, 1)$ . Graph the figure and its image after a reflection over the  $x$ -axis.



# Chapter 2 Answer Key B.I.T #1

## Vocabulary Check

Define the following vocabulary words:

- 1) Absolute Value: The distance a number is from zero on a number line
- 2) Quadrant: One of four regions into which the x-axis and y-axis separate the coordinate plane

State whether the statement is *true* or *false*.

If *false*, replace the underlined word or number to make a true sentence.

- 3) Two numbers with the same absolute values but different signs are opposites. true
- 4) A positive number is a number less than zero. false; more
- 5) Numbers like -6 and -0.5 examples of integers. false; -6 and 5
- 6) The set of quadrants includes positive whole numbers, their opposites, and zero. false; integers

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## 2-1 Integers and Absolute Value (pp. 61-66)

Compare the integers using  $<$ ,  $>$ , or  $=$

- |              |                   |                |
|--------------|-------------------|----------------|
| 7) $5 > -5$  | 8) $ 16  >  -14 $ | 9) $7 =  -7 $  |
| 10) $-3 < 1$ | 11) $-14 > -22$   | 12) $0 <  -5 $ |

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## 2-2 Adding Integers (pp. 69-74)

Find each sum.

- |                          |   |
|--------------------------|---|
| 13) $-5 + -1 = -6$       | 14) $-6 + 10 = 4$                       |
| 15) $2 + 8 + -3 = 7$     | 16) $-7 + 5 + -4 = -6$                  |
| 17) $-12 + 6 + -5 = -11$ | 18) $-9 + 3 + -3 + 4 + 5 + -6 + 12 = 6$ |

## 2-3 Subtracting Integers (pp. 76-80)

Find each difference.

19)  $7 - 13 = \underline{-6}$

20)  $8 - -3 = \underline{11}$

21)  $-4 - 6 = \underline{-10}$

22)  $-1 - -4 = \underline{3}$

23)  $3 - 5 - -2 - 8 - 6 - -7 = \underline{-7}$

24)  $-12 - 11 - -13 - 5 - -14 - 10 = \underline{-11}$

## 2-4 Multiplying Integers (pp. 83-88)

Find each product.

25)  $-2 \times 3 = \underline{-6}$

26)  $-7(-9) = \underline{63}$

27)  $(-7)^2 = \underline{49}$

28)  $3 \times -4 \times 2 \times -5 \times (-1)^5 = \underline{-120}$

29)  $-1 \times 5 \times -2 \times 3 \times -1 = \underline{-30}$

30)  $-2 \times -2 \times -2 \times -2 \times 2 = \underline{32}$

## 2-5 Dividing Integers (pp. 90-95)

Find each quotient.

31)  $-16 \div -4 = \underline{4}$

32)  $170 \div -10 = \underline{-17}$

33)  $-56 \div -8 = \underline{7}$

34)  $\frac{3}{4} \div -0.75 = \underline{-1}$  ← Note: Not integers ☺

35)  $(42 \div -7) \div (-9 \div -3) = \underline{-2}$

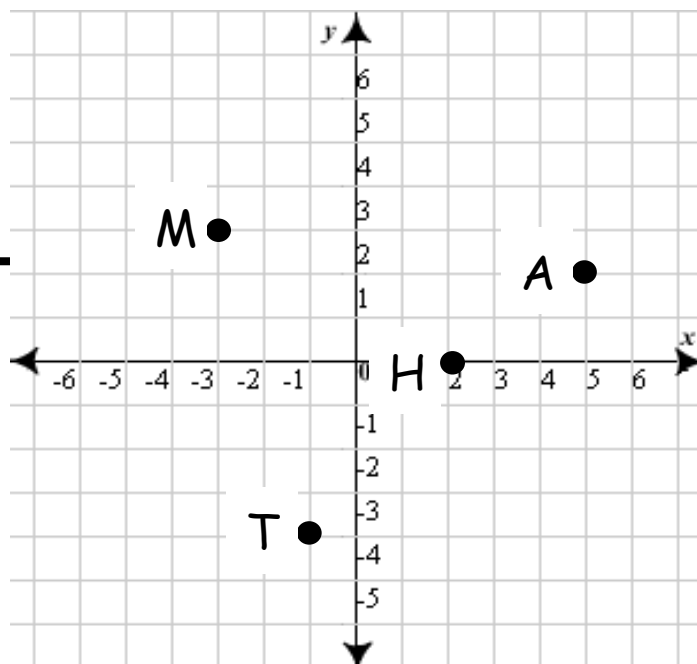
36)  $(-50 \div -10) \div (-35 \div 7) = \underline{-1}$

## (pp. 96-100) 2-6 Graphing In 4 Quadrants

Graph and label each point on a coordinate plane. Name the quadrant in which each point is located.

37) M (-3, 3) **Quad II** 38) A (5, 2) **Quad I**

39) T (-1, -4) **Quad III** 40) H (2, 0) **x-axis**



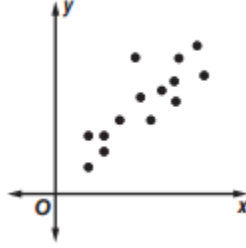
Name \_\_\_\_\_ Date \_\_\_\_\_ Pd \_\_\_\_\_

Tell whether each scatter plot shows a positive, negative, or no relationship.

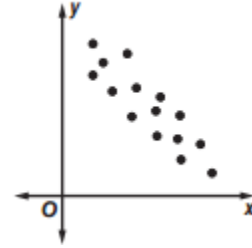
41) **No Relationship**



42) **Positive Relationship**

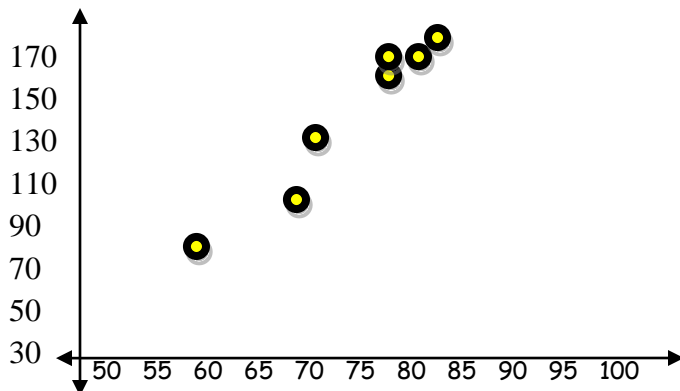


43) **Negative Relationship**



**SCIENCE-** Scientists believe there may be a relationship between temperatures and the number of chirps produced by crickets. The table gives the temperature and the number of chirps per minute for several cricket samples.

44) Make a scatter plot for the data

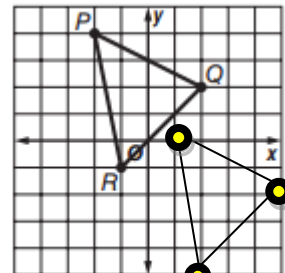


Temperature (°F)	Chirps/min
71	138
68	97
75	152
80	158
60	81
75	155
84	165

45) Does there appear to be a relationship between temperatures and chirps? If so, what type of relationship is there?

**YES, there is a Positive relationship between the temperature and the number of chirps of crickets.**

46) Graph & Find the coordinates of the vertices of the image of  $\triangle POR$  translated 3 units to the right and 4 units down.



47) The vertices of figure  $STUV$  are  $S(-3, 2)$ ,  $T(-2, 4)$ ,  $U(3, 3)$ , and  $V(2, 1)$ . Graph the figure and its image after a reflection over the  $x$ -axis.

