

**3-1****Practice: Skills*****Integers and Absolute Value***

Write an integer for each situation.

1.  $15^{\circ}\text{C}$  below 0

2. a profit of \$27

3. 2010 A.D.

4. average attendance is down 38 people

5. 376 feet above sea level

6. a withdrawal of \$200

7. 3 points lost

8. a bonus of \$150

9. a deposit of \$41

10. 240 B.C.

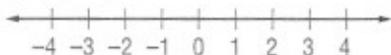
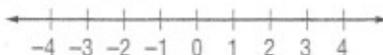
11. a wage increase of \$120

12. 60 feet below sea level

Evaluate each expression.

13.  $|-1|$ 14.  $|9|$ 15.  $|23|$ 16.  $|-107|$ 17.  $|-45|$ 18.  $|19|$ 19.  $|0|$ 20.  $|6| - |-2|$ 21.  $|-8| + |4|$ 22.  $|-12| - |12|$ 

Graph each set of integers on a number line.

23.  $\{0, 2, -3\}$ 24.  $\{-4, -1, 3\}$ 

**3-2****Practice: Skills****Comparing and Ordering Integers**

Replace each  $\bullet$  with  $<$  or  $>$  to make a true sentence.

1.  $-15 \bullet -16$

2.  $-8 \bullet -7$

3.  $0 \bullet -2$

4.  $-2 \bullet -5$

5.  $-25 \bullet 3$

6.  $-14 \bullet |-20|$

7.  $|-4| \bullet 3$

8.  $|-6| \bullet |-7|$

9.  $|-7| \bullet |2|$

10.  $-8 \bullet |-9|$

Determine whether each sentence is *true* or *false*. If *false*, change one number to make the sentence true.

11.  $-7 < 3$

12.  $2 > 0$

13.  $-20 < -22$

14.  $12 < 15$

15.  $3 > |-5|$

16.  $|-2| < -3$

17.  $|8| < |-10|$

18.  $|-11| = 11$

19.  $-4 < 4$

20.  $|-9| < |-10|$

Order the integers from least to greatest.

21. 12, -6, 20, -47, -11

22. 9, -6, 0, -4, 17, -11

Order the integers from greatest to least.

23. -40, 65, -7, 24, -6, 15

24.  $|-13|$ , 0, 7, -8, -5,  $|2|$

**3-1****Practice: Word Problems***Integers and Absolute Value*

<p><b>1. DEATH VALLEY</b> The lowest point in the United States is Death Valley in California. Its altitude is 282 feet below sea level. Write an integer to represent the altitude of Death Valley.</p>	<p><b>2. RAIN</b> A meteorologist reported that in the month of April there were 3 inches more rainfall than normal. Write an integer to represent the amount of rainfall above normal in April.</p>
<p><b>3. ARCHIMEDES</b> A famous mathematician and physicist named Archimedes was born in 287 B.C. Write an integer to express the year of his birth.</p>	<p><b>4. TEMPERATURE</b> In our world's tropical rain forests, the average temperature of every month is 64 degrees above zero or higher. Write an integer to express this temperature.</p>
<p><b>5. STOCK MARKET</b> A certain stock gained 5 points in one day and lost 4 points the next day. Write integers to represent the stock's gains and losses for the two days.</p>	<p><b>6. ALTITUDE</b> An airplane pilot changed his altitude by 100 meters. Describe what this could mean.</p>

**3-2****Practice: Word Problems****Comparing and Ordering Integers**

**HISTORY OF WRITING** For Exercises 1 and 2, use the table below. It shows important events in the history of writing.

Event	Aprox. Year
The <i>Iliad</i> and the <i>Odyssey</i> are composed by Homer.	700 BC
T'sai Lun invents paper.	105 AD
Date of oldest existing papyrus	2200 BC
Ovid wrote <i>Metamorphosis</i> .	5 AD
Torah is compiled.	450 BC
Metal type developed in Korea	1241 AD

**EXTREME TEMPERATURES** For Exercises 3–5, use the table below. It shows the extreme temperatures for four states. Temperatures are in degrees Fahrenheit.

**Extreme Temperatures (°F)**

State	Highest	Lowest
Alabama	104	3
Nebraska	118	-47
Maine	101	-30
Florida	109	-2

1. Write each year as an integer.

2. Order the integers from Exercise 1 from least to greatest. Write a sentence describing the earliest and most recent events in the table.

3. Arrange the highest temperatures from greatest to least.

4. What is the median low temperature for these four states?

5. Nebraska's lowest temperature was  $-47^{\circ}\text{F}$ , and Maine's lowest temperature was  $-30^{\circ}\text{F}$ . Write a true statement using the two temperatures with the symbol  $>$  or  $<$ .

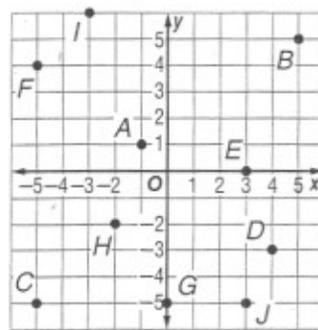
6. **MONEY** Mr. Firewalks pays close attention to how much money is in his checking account. One week he deposited \$230, spent \$15 on a lunch, and loaned \$25 to a friend. Write each transaction as an integer, and list them from least to greatest.

# 3-3

## Practice: Skills

### The Coordinate Plane

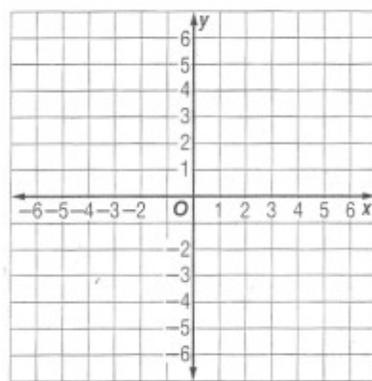
Name the ordered pair for each point graphed at the right. Then identify the quadrant in which each point lies.



- |      |       |
|------|-------|
| 1. A | 2. B  |
| 3. C | 4. D  |
| 5. E | 6. F  |
| 7. G | 8. H  |
| 9. I | 10. J |

Graph and label each point on the coordinate plane.

- |                 |                |
|-----------------|----------------|
| 11. $N(-1, 3)$  | 12. $V(2, -4)$ |
| 13. $C(4, 0)$   | 14. $P(-6, 2)$ |
| 15. $M(-5, 0)$  | 16. $K(-1, 5)$ |
| 17. $I(-3, -3)$ | 18. $A(5, -3)$ |
| 19. $D(0, -5)$  |                |



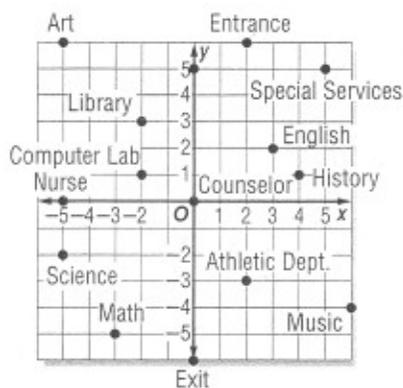
Name the ordered pair for each point on the city map at the right.

20. City Hall
21. Theater
22. Gas Station
23. Grocery



**3-3****Practice: Word Problems***The Coordinate Plane*

**SCHOOL** For Exercises 1–4, use the coordinate plane at the right. It shows a map of the rooms in a junior high school.



- |  |  |
|--|--|
| <p>1. Thalia is in the room located at <math>(-2, 1)</math>. What room is she in? Describe in words how to get from the origin to this point.</p>  | <p>2. Thalia's next class is 8 units to the right and 5 units down on the map from where she is now. In what room is Thalia's next class? Find the ordered pair that represents the location of that room.</p> |
| <p>3. Tyrone is in the Art room, but his next class is in the History room. Give Tyrone directions on how to get to the History room.</p>  | <p>4. On the map, which classrooms are located in the third quadrant? Describe the coordinates of all points in the third quadrant.</p>  |
| <p>5. <b>NEIGHBORHOOD</b> Delsin made a map of his neighborhood in such a way that each intersection is a point on a coordinate plane. Right now, Delsin stands at point <math>(-4, -3)</math>. Give the ordered pair of where he will be if moves 5 units to the right and 7 units up on the map.</p> | <p>6. <b>NEIGHBORHOOD</b> Refer to Exercise 5. In which quadrant is Delsin when he is done walking? Describe this quadrant.</p>  |