



DISTANCE LEARNING PACKET

7TH GRADE

MATH

7th - Day 6

Discount, Tax, and Tip Worksheet

Name: _____

Discount: The amount saved and subtracted from the original price of an item to get the discounted price.

Procedure:

1. The rate is usually given as a percent.
2. To find the discount, multiply the rate (as a decimal) by the original price.
3. To find the sale price, subtract the discount from original price.

Example: In a video store, a DVD that sells for \$15 is marked, "10% off". What is the discount? What is the sale price of the DVD?

Solution: The rate is 10%.

The discount is: $0.10 \times \$15.00 = \1.50

The sale price is calculated as follows:

\$15.00 original price

- 1.50 - discount

\$13.50 sale price

Answer: The discount is \$1.50 and the sale price is \$13.50.

- 1) In a department store, a \$40 dress is marked, "Save 25%." What is the discount? What is the sale price of the dress?

- 2) In a grocery store, a \$12 case of soda is labeled, "Get a 20% discount." What is the discount? What is the sale price of the case of soda?

- 3) In a candy store, a \$5.00 jar of candy is labeled, "50% off." What is the discount? What is the sale price of the jar of candy?

- 4) In a bicycle store, a \$500 bicycle is marked, "Get a 30% discount." What is the sale price of the bicycle?

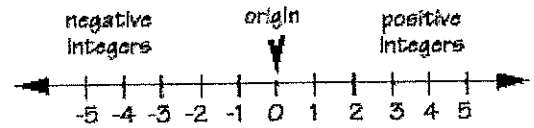
Tax: A tax on sales that is paid to the retailer. You need to add the sales tax to the price of the item to find the total amount paid for the item.

Procedure:

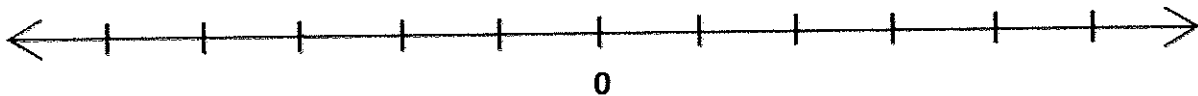
1. The rate is usually given as a percent.
 2. To find the tax, multiply the rate (as a decimal) by the original price.
 3. To find the total cost, add the tax to the original price.
- 5) If the sales tax rate is 7.25% in California, then how much would you pay in Los Angeles for a pair of shoes that cost \$39.00?
- 6) The price of a new car is \$29,990. If the sales tax rate is 6.5%, then how much sales tax is being charged? What is the total cost for the car including tax?
- 7) If the sales tax rate is 7.375% in New York State, then how much sales tax would you pay in Albany for a \$34 pair of pants?
- 8) At best buy they have a 42" TV that sells for \$1250 and is on sale for 15% and sales tax is 6.5%. What is the final cost? (Hint: Calculate the discount first and then the tax).

Integers (SOL 6.3 a & b)

- An integer is any number from the set $\{\dots, -4, -3, -2, -1, 0, 1, 2, 3, 4, \dots\}$ where ... means continues without end.
- Negative integers are integers _____ than zero.
- Positive integers are integers _____ than zero.
- _____ is neither negative nor positive. We call it the origin.



Number the number line from -5 to 5.



These numbers are **Integers**: 0; 3; -100; 432; 987,654,321; $\frac{10}{2}$; $-\frac{6}{3}$; $\frac{99}{9}$

These numbers are **not Integers**: 7.2, $\frac{10}{4}$, $-\frac{5}{8}$, -3.7

Write Integers for Real-Life Situations

a gain of 5 yards on the first down.

6 feet below sea level

a temperature of 10 degrees below zero.

a \$35 withdrawal

You Try! Underline key words

a. Lost 6 points

h. 5000 feet above sea level

b. 3 strokes below par

i. 7 inches below normal

c. \$5 deposit

j. \$5 off the original price

d. A loss of \$30

k. ascend 100 meters

e. descend 20 meters

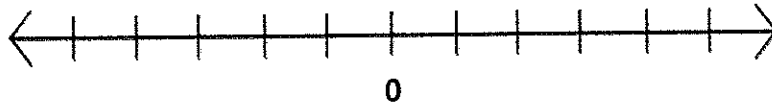
l. 10 strokes above par

f. 12 centimeters longer

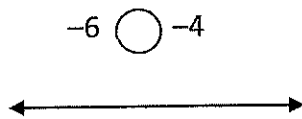
m. 6 yard loss

Graph an Integer on a Number Line

Graph -4 on a number line. Then graph $\frac{8}{2}$ on a number line. Which one is greater????

Compare Integers

Use the $>$, $<$, or $=$ to make a true sentence.



a. $3 \bigcirc -5$

b. $-5 \bigcirc 0$

c. $6 \bigcirc \frac{6}{2}$

d. $-3 \bigcirc -\frac{9}{3}$

Positive numbers are always _____ than **negative** numbers

Zero is always _____ than a positive number, but _____ than a negative number.

When comparing **two negative** numbers, first imagine them on a number line.

Whichever negative number is closer to the zero is always _____.

Order Integers

SCIENCE The average surface temperatures of Jupiter, Mars, Earth, and the Moon are shown in the table. Order the temperatures from least to greatest (in ascending order).

Name	Average Surface Temperature ($^{\circ}\text{F}$)
Jupiter	-162
Moon	-10
Mars	-81
Earth	59

Write the following integers in descending order.

$$-5, \frac{20}{4}, 3, -12, 8, -\frac{12}{3}$$

??? Why is it better to have a positive bank account rather than a negative bank account?

8-1

Study Guide and Intervention

Integers

An **integer** is any number from the set $\{\dots, -3, -2, -1, 0, 1, 2, 3, \dots\}$ where \dots means *continues without end*. You can use a number line to compare integers. On a number line, the number on the left is always less than the number on the right. **Opposite integers** are the same distance from zero on opposite sides of the number line.

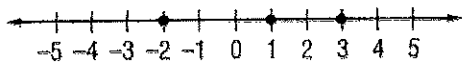
EXAMPLE 1 Write an integer to show 3 degrees below zero.

Numbers *below zero* are negative numbers.

The integer is -3 .

EXAMPLE 2 Order the integers 1, -2 , and 3 from least to greatest.

Graph each integer on a number line. Then compare.



The order from least to greatest is $-2, 1, \text{ and } 3$.

EXERCISES

Write an integer to describe each situation.

1. 4 degrees below zero

2. a gain of 2 points

Replace each \square with $<$, $>$, or $=$ to make a true sentence.

3. $-2 \square 0$

4. $3 \square -3$

5. $-9 \square -9$

Write the opposite of each integer.

6. 3

7. -2

8. 1

9. -4

Order each set of integers from least to greatest.

10. $-2, 3, 0, -1, 1$

11. $3, -3, -2, 1, -1$

12. $5, -7, -2, 1, 9$

13. $-2, 1, 5, -5, 0$

8-1 Practice: Skills

Integers

Write an integer to describe each situation.

1. a loss of 8 yards
2. an increase of 2 inches
3. 5 feet above sea level
4. a decrease of 6 members
5. scored 10 fewer points
6. earned 7 dollars interest
7. a gain of 5 pounds
8. 4 degrees below normal

Graph each integer on the number line.



9. 0
10. -3
11. 4
12. +6
13. -5
14. 1
15. -8
16. 7

Replace each \bigcirc with $<$, $>$, or $=$ to make a true sentence.

17. $-9 \bigcirc 8$
18. $0 \bigcirc -1$
19. $+6 \bigcirc 6$
20. $-3 \bigcirc 3$
21. $12 \bigcirc -21$
22. $-12 \bigcirc -10$
23. $5 \bigcirc -5$
24. $-83 \bigcirc -80$
25. $-9 \bigcirc -9$
26. $-57 \bigcirc -75$
27. $-56 \bigcirc 56$
28. $0 \bigcirc 0$

Write the opposite of each integer.

29. -2
30. +6
31. -9
32. +8
33. -7
34. +10
35. +14
36. +12

Order each set of integers from least to greatest.

37. 2, -6, -2, 0
38. 9, -8, 4, -9
39. 5, -3, -11, 9
40. -3, 2, -4, -17

Infinite Algebra 1

Name _____

One-Step Equations

Date _____ Period _____

Solve each equation.

1) $26 = 8 + v$

2) $3 + p = 8$

3) $15 + b = 23$

4) $-15 + n = -9$

5) $m + 4 = -12$

6) $x - 7 = 13$

7) $m - 9 = -13$

8) $p - 6 = -5$

9) $v - 15 = -27$

10) $n + 16 = 9$

11) $-104 = 8x$

12) $14b = -56$

13) $-6 = \frac{b}{18}$

14) $10n = 40$

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15) $\frac{v}{8} = 2$

16) $16 = \frac{k}{11}$

17) $-15x = 0$

18) $-17x = -204$

19) $21 = -7n$

20) $\frac{m}{4} = -13$

21) $-126 = 14k$

22) $-143 = -11x$

23) $-16 + x = -15$

24) $-5 = \frac{a}{18}$

25) $-17 = x - 15$

26) $n - 8 = -10$

27) $\frac{v}{7} = 8$

28) $a + 11 = 20$

29) $-7 + m = 8$

30) $18 + m = 8$

Infinite Algebra 1

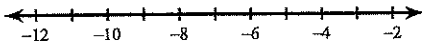
Name _____

One-Step Inequalities

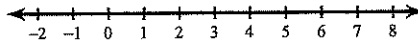
Date _____ Period _____

Solve each inequality and graph its solution.

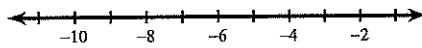
1) $-12 > x - 7$



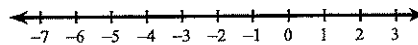
2) $-1 + r \geq 4$



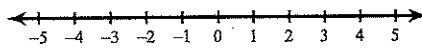
3) $n - 6 \leq -14$



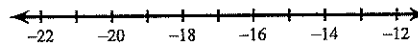
4) $b - 7 < -12$



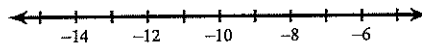
5) $a - 17 > -16$



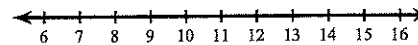
6) $15 + x \leq 0$



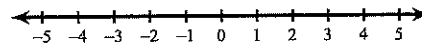
7) $3 + v \leq -9$



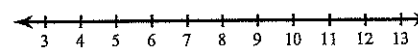
8) $8 \geq n - 6$



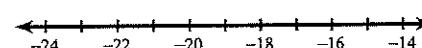
9) $-3x > 3$



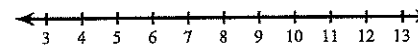
10) $\frac{n}{3} > 3$



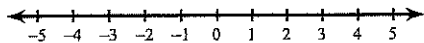
11) $\frac{k}{4} < -4$



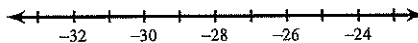
12) $-9x \geq -90$



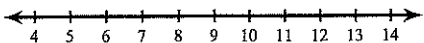
13) $0 \geq 7n$



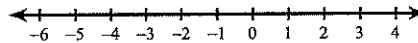
14) $\frac{m}{5} \geq -5$



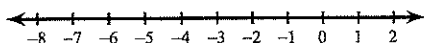
15) $-13x < -156$



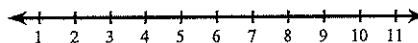
16) $32 \geq -16p$



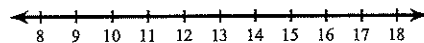
17) $-8 > v - 3$



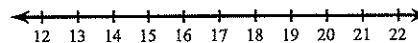
18) $11 \leq 5 + x$



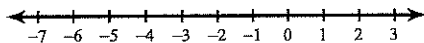
19) $25 \geq n + 13$



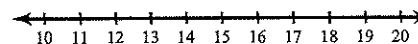
20) $-168 > -12a$



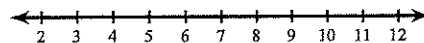
21) $-3 \leq x - 4$



22) $\frac{r}{3} > 6$



23) $12n \geq 84$



24) $-22 > -10 + b$

