

7th grade math Day 1
1-10

Unit: Integer Operations
Solve and Color - A

Name _____
Date _____ Pd _____

ADDING INTEGERS

Solve each problem. Then, use the color that corresponds with each solution to color the picture on the next page.

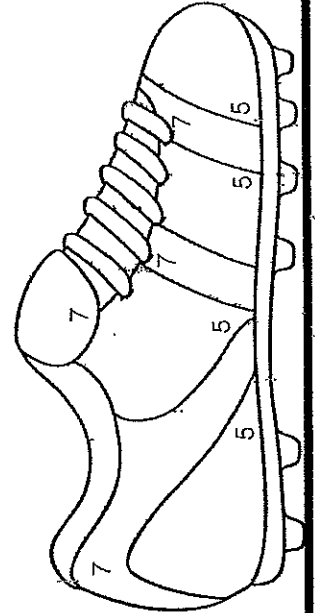
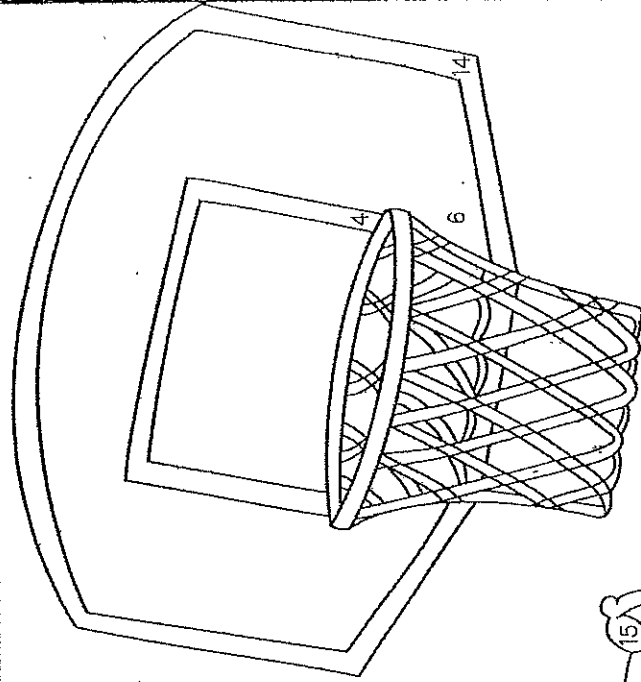
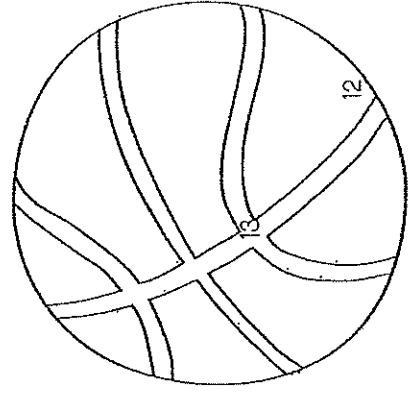
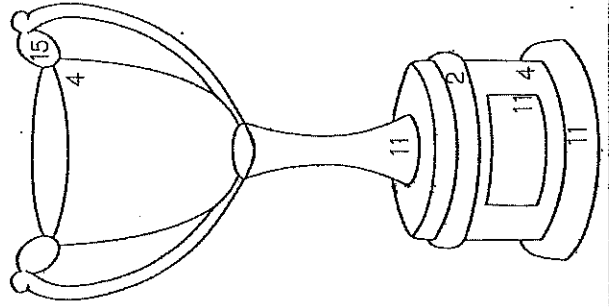
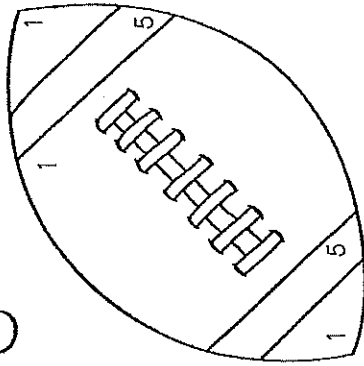
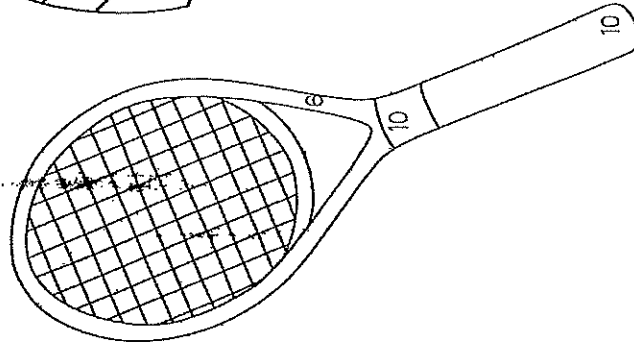
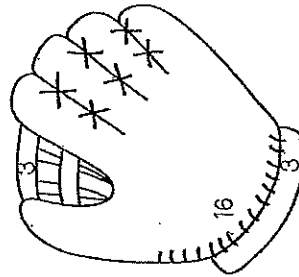
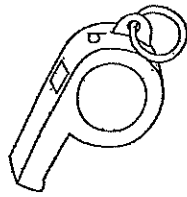
1 $19 + (-7) =$	2 $-8 + (-13) =$	3 $-25 + (-7) =$	4 $11 + 15 =$
5 $6 + 9 =$	6 $-16 + (-2) =$	7 $13 + (-14) =$	8 $-3 + (-4) =$
9 $10 + (-2) =$	10 $-8 + (-8) =$	11 $7 + (-11) =$	12 $-3 + 8 =$
13 $-1 + (-12) =$	14 $4 + (-13) =$	15 $-10 + 5 =$	16 $12 + (-3) =$

RED	YELLOW	PINK	BLUE	LIGHT GREEN	ORANGE	DARK GREEN	PURPLE
5	-13	-21	15	9	-7	8	26
-1	12	-4	-9	-18	-16	-32	-5

ADDING INTEGERS

Solve each problem. Then, use the color that corresponds with each solution to color the picture below.

GO TEAM!



Unit: Integer Operations
Solve and Color - A

Name _____
Date _____ Pd _____

SUBTRACTING INTEGERS

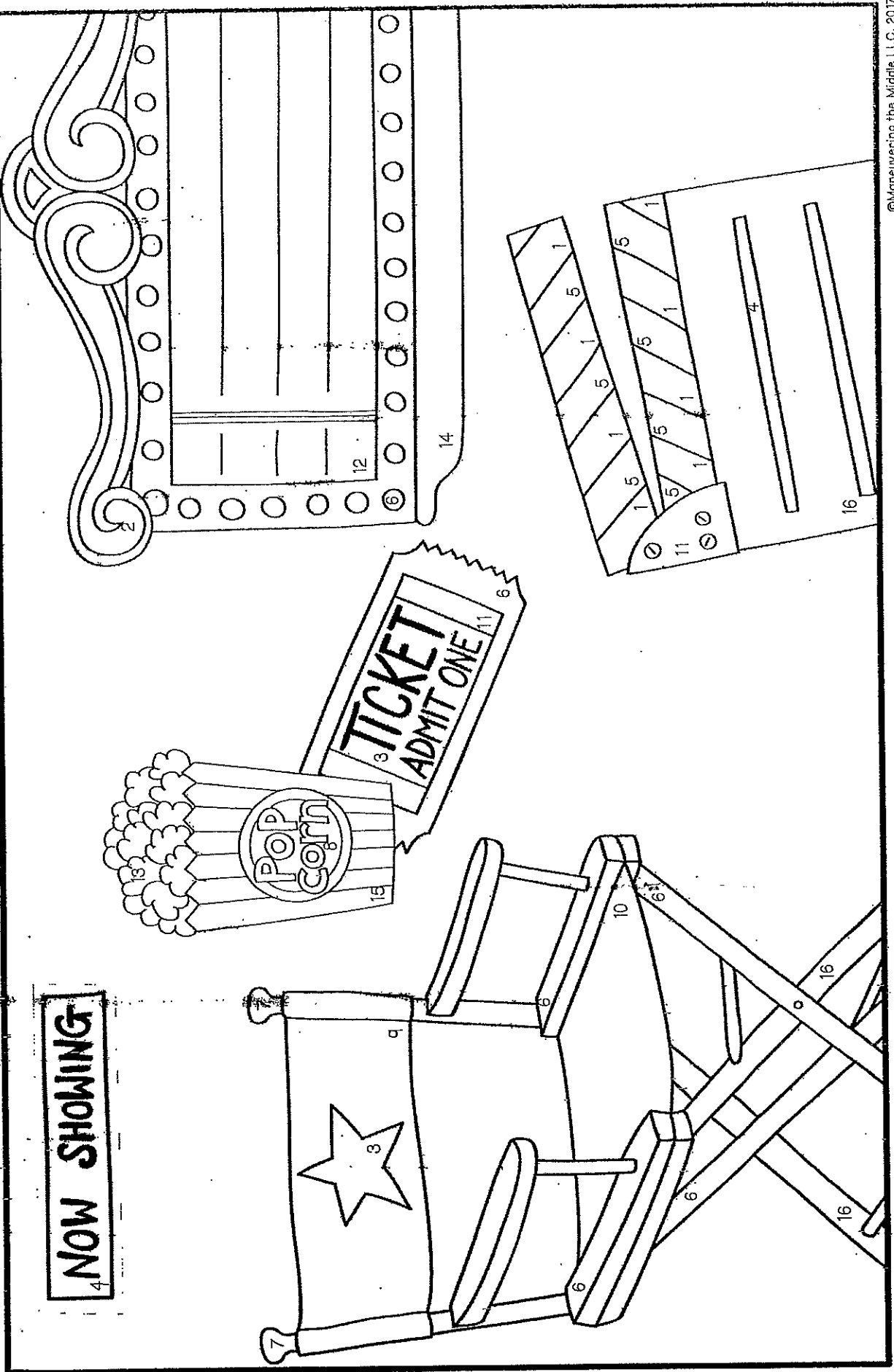
Solve each problem. Then, use the color that corresponds with each solution to color the picture on the next page.

1 $19 - (-3) =$	2 $-7 - (-9) =$	3 $-25 - (-4) =$	4 $9 - 25 =$
5 $6 - 18 =$	6 $-16 - (-2) =$	7 $13 - (-17) =$	8 $-23 - (-4) =$
9 $16 - (-8) =$	10 $-18 - (-8) =$	11 $27 - (-11) =$	12 $-23 - 8 =$
13 $-11 - (-12) =$	14 $9 - (-10) =$	15 $-10 - 10 =$	16 $14 - (-3) =$

RED	YELLOW	PINK	BLUE	LIGHT GREEN	ORANGE	DARK GREEN	PURPLE
-14	-12	38	22	-10	-16	19	17
-31	-20	24	1	2	30	-19	-21

SUBTRACTING INTEGERS

Solve each problem. Then, use the color that corresponds with each solution to color the picture below.



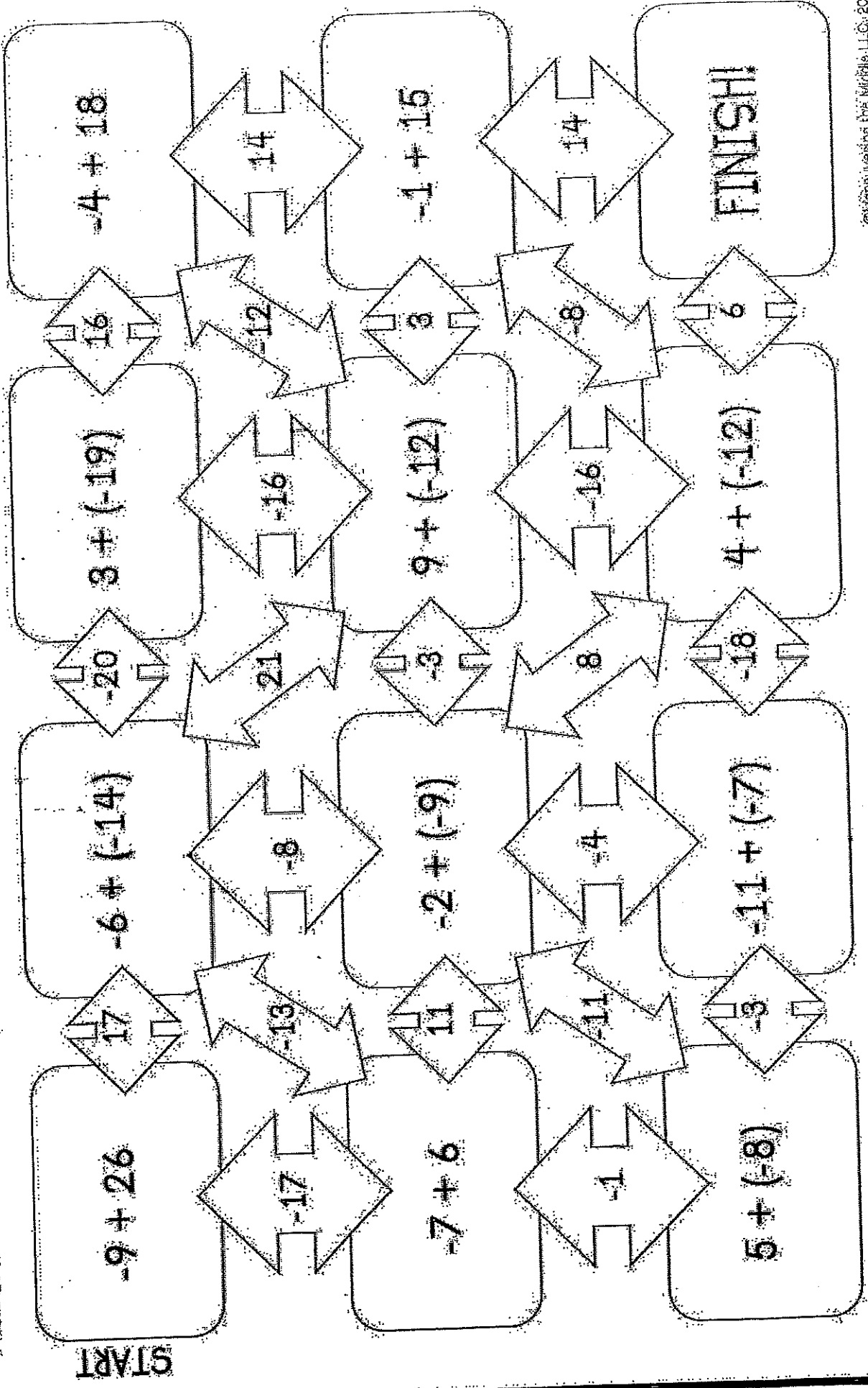
ADDING INTEGERS

Day 3

Name: _____ Pd: _____
Date: _____

MAZE #1

Follow the solution to each problem to make it correctly through the maze. Shade or color your path as you go.



SUBTRACTING INTEGERS

MAZE #2

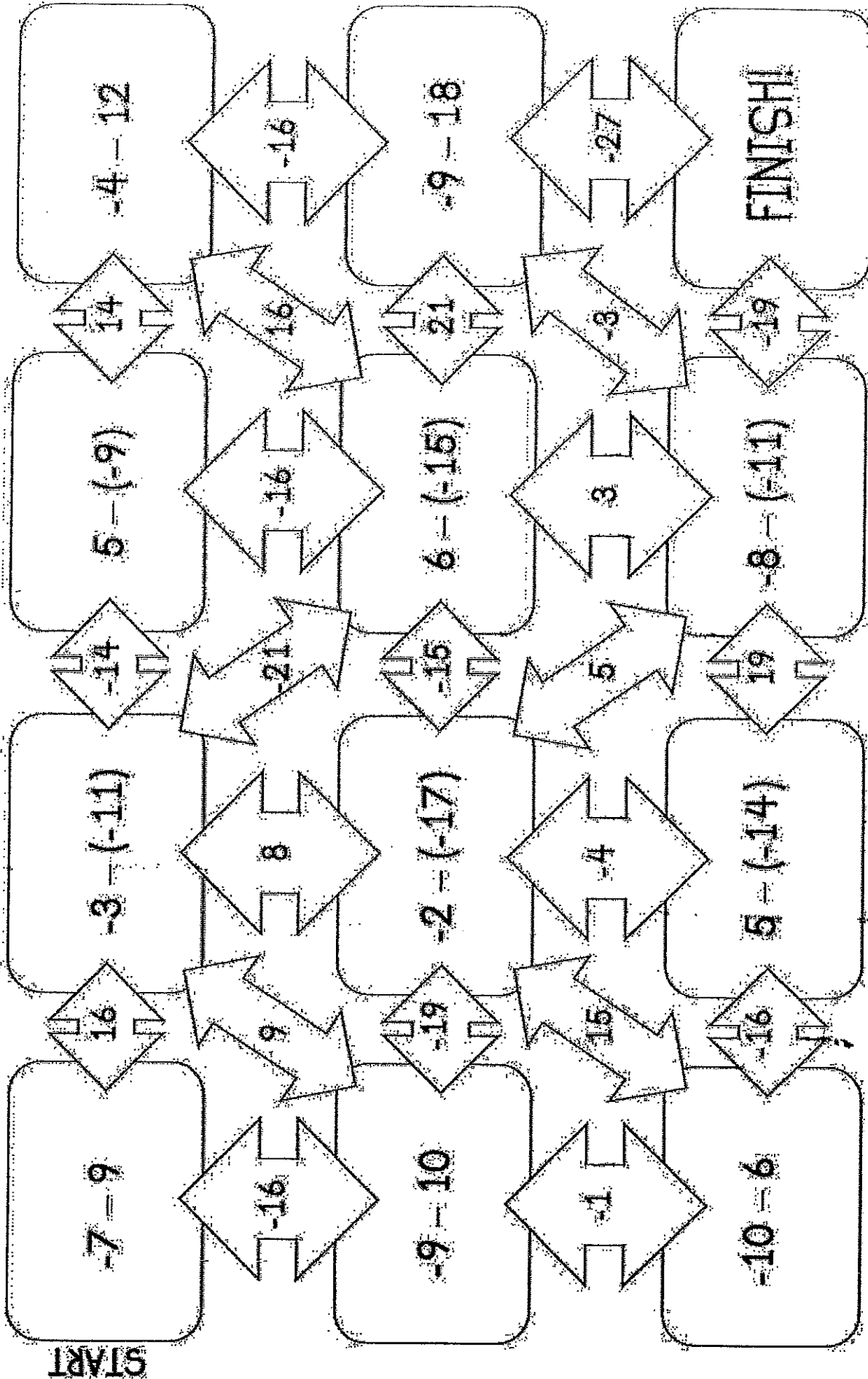
Name: _____

Date: _____

Page: _____

Day 4

Follow the solution to each problem to make it correctly through the maze. Shade or color your path as you go.



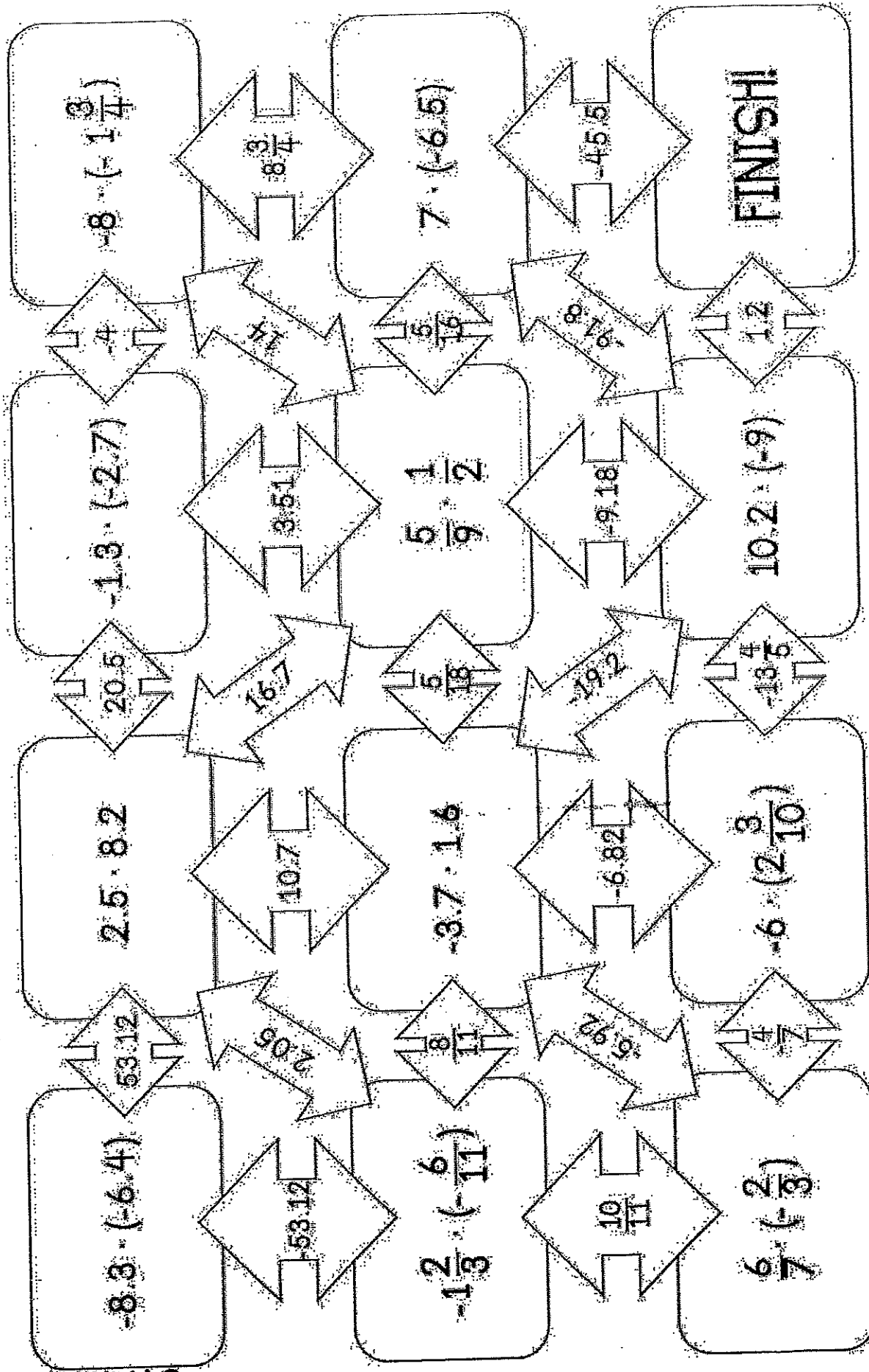
MULTIPLYING RATIONAL NUMBERS

MAZE #1

Day 5

Name _____ Pd _____
 Date _____

Follow the solution to each problem to make it correctly through the maze. Shade or color your path as you go.



DIVIDING RATIONAL NUMBERS

MAZE #2

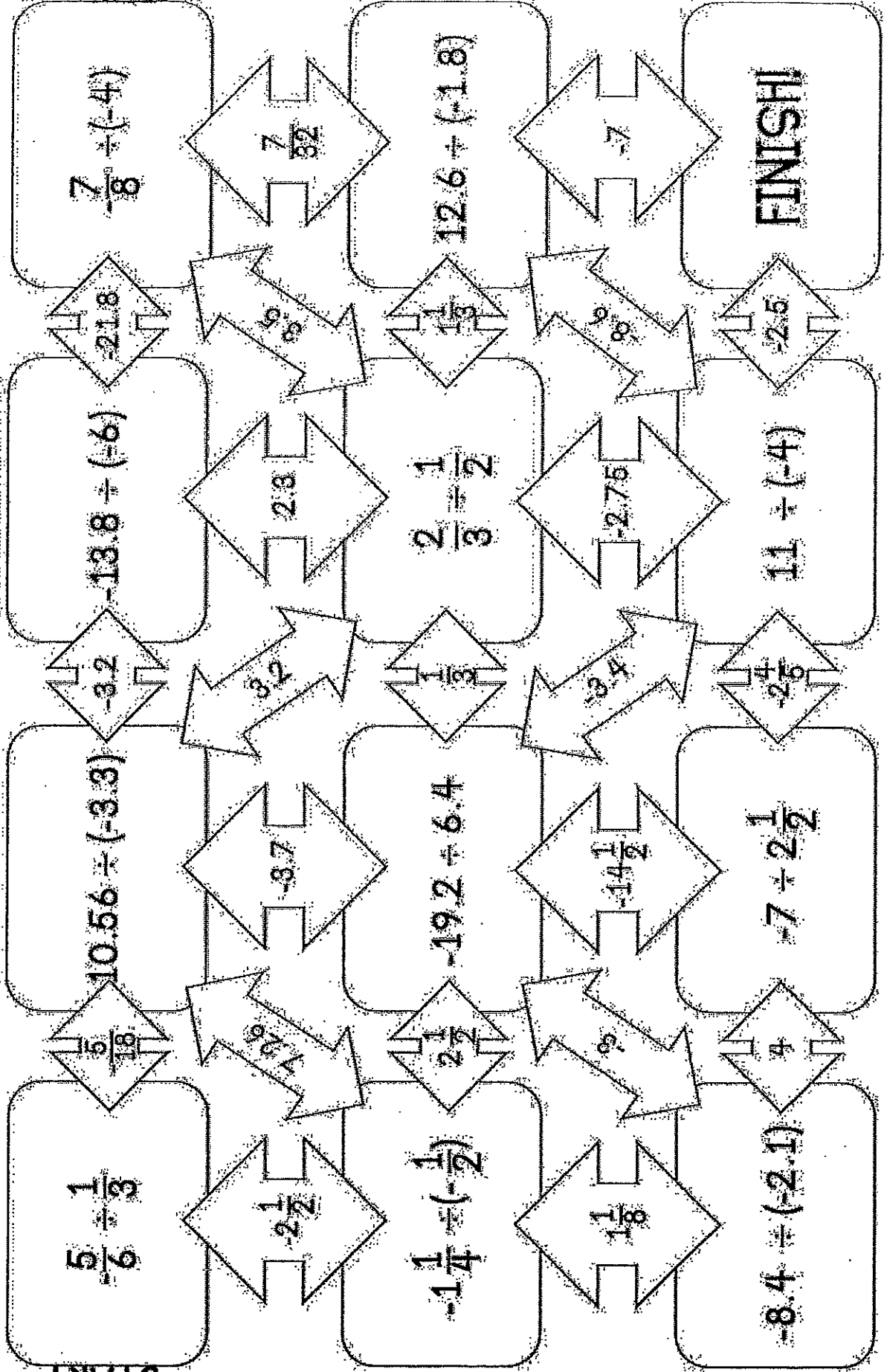
Name _____

Date _____

Day 10

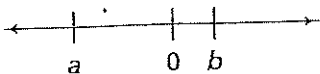
Pd _____

Follow the solution to each problem to make it correctly through the maze. Shade or color your path as you go.



Name _____

1. A number line shows values a and b . How long is the line between a and b ?



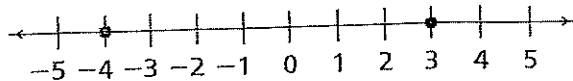
2. When she woke in the morning, Josie noticed the temperature outside was -4.8°C . When she got home from school the temperature rose to 15.6°C . What was the change in temperature?

3. What number makes this equation true? Explain.

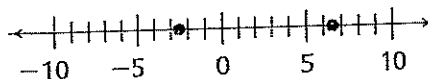
$$\square + (-17.2) = 0$$

4. If a dune buggy drives from an elevation of 10 meters below sea level to an elevation of 5 meters above sea level, what is the vertical distance that the dune buggy traveled?

5. What is the distance between the two points on this number line?



6. Which expression represents the distance between the two points on the number line?



- (A) $-2.5 + 6.5$
 (B) $6.5 + (-2.5)$
 (C) $|-2.5 + 6.5|$
 (D) $|-2.5| + 6.5$

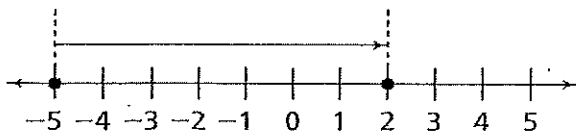
7. Select all the points that are more than 3 units away from 0 on a number line.

- 3
 4
 -7
 -3
 -5

8. Jake uses a number line to find the value of the expression $-5 + 7 + (-2)$.

Part A

Draw the last step on the number line.



Part B

What is the value of the expression $-5 + 7 + (-2)$?

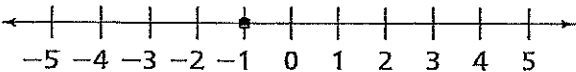
- (A) 0 (C) 2
 (B) 4 (D) 7

9. The points -7 and $+2$ are plotted on a number line. What is the distance between them?

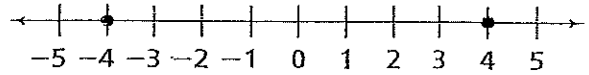
- (A) 8 (C) -5
 (B) 5 (D) 9

10. Which number, when added to 12.9 , has a sum of 0 ?

11. Which point on the number line is 6 units away from the point indicated?



12. What is the distance between the two points on this number line?



13. Todd is doing math homework and notices that two numbers he is working with add up to zero. What is true of the two numbers that Todd is working with?

- (A) Both numbers are negative
 (B) Both numbers are positive
 (C) The numbers are opposite of each other
 (D) One of the numbers is zero

14. The points -9.8 and $+5.2$ are plotted on a number line. What is the distance between them?

- (A) -4.6 (C) -15
 (B) 4.6 (D) 15

Name _____

1. What number do you need to add to +6 to get 0?

2. A train first travels east for 20 kilometers. Then it turns north and travels for 43 kilometers. Next it goes west for 20 kilometers. Finally, it travels south for an unknown number of kilometers. At the end of the journey, the train is back at the original location. How far did it travel southward?

3. At 11 P.M., it was 48°F . The temperature was 6° cooler by 7 A.M. By 11 A.M. the temperature was 48°F again. What integer represents the number of degrees the temperature changed from 7 A.M. to 11 A.M.?

4. An object is at rest if all forces acting on the object have a net force of zero. If an object has a force of -5.5 Newtons applied to it, what force needs to be applied in order for the object to be at rest?

- (A) 5.5 Newtons
(B) 5 Newtons
(C) -5 Newtons
(D) -5.5 Newtons

5. What number do you need to add to -11 to get 0?

6. June starts hiking at sea level. She climbs 500 ft and then descends 175 ft. Which integer represents the change in elevation June still needs to complete in order to reach sea level again?

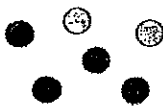
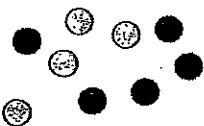
- (A) 175
(B) -500
(C) -175
(D) -325

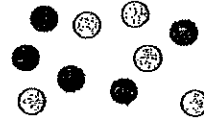

7. A helium atom has no charge if it has 2 protons (+) and 2 electrons (-). Which expression best represents this helium atom with no charge?

- (A) $2 + 2 = 0$
- (B) $2 + (-2) = 0$
- (C) $2 = -2$
- (D) $2 + -2 = 0$

8. Which set of tokens represents 0?

- Positive
- ⊙ Negative

(A)  (B) 

(C)  (D) 

9. Tammy only has \$550 of debt left. If Tammy were to pay off her debt completely today, how could you represent Tammy's situation as an equation?

10. A neon atom has no charge if it has 10 protons (+) and 10 electrons (-). How would you represent a neon atom with no charge using a mathematical equation?

11. A train travels 25 kilometers east to get to Mathy station. It then travels 42 kilometers north to get to Aiur station. How many kilometers south does the train need to travel to get back to Mathy station?

- (A) -42 kilometers
- (B) 42 kilometers
- (C) 25 kilometers
- (D) -25 kilometers

12. If $a + b = 0$, then what is true about a and b ?

- (A) $a = -b$
- (B) $|a| > |b|$
- (C) $a = -|b|$
- (D) $|b| > |a|$

13. What number do you need to add to -33.4 to get 0?

Name _____

1. An expression is given:

$$9x - 7y - 6x$$

Write an equivalent expression by combining like terms.

2. An expression is given:

$$x(-1.8 - 6y)$$

Use the distributive property to expand the expression.

3. An expression is given:

$$\frac{2}{5}x - \frac{2}{3}z + 8 - 2 - 0.3x$$

Select all pairs of like terms.

- 8 and 2 $\frac{2}{5}x$ and $-\frac{2}{3}z$
- $\frac{2}{5}x$ and $0.3x$ $\frac{2}{5}x$ and $-0.3x$
- 8 and -2

4. An expression is given:

$$35c + 14b - 7$$

Use the GCF of the terms to write an equivalent expression.

5. What is the sum of the two expressions?

$$\left(\frac{2}{7}x - 6\right) + \left(\frac{3}{7}x + 8\right)$$

6. Find the difference of the two expressions.

$$\left(\frac{4}{5}k + 1\right) - \left(\frac{3}{5}k - 2\right)$$

7. What coefficient of
- d
- makes the expressions equivalent?

$$-\frac{1}{3}(2.7d + 1.8) = (?d - 0.6)$$

8. Joel read
- x
- books during summer vacation. Lucas read 3 more than twice the number of books Joel read. Erica read 5 less than four times the number of books Joel read.

Select all the expressions which represent the total number of book read by Joel, Lucas and Erica.

- $x + (2x + 3) + (5 - 4x)$
- $6x + 8$
- $7x + 2$
- $7x - 2$
- $x + (2x + 3) + (4x - 5)$

9. Select all expressions that are equivalent to $18a - 12$.

- $2(9a - 6)$
- $6(3a - 2)$
- $-3(6a + 4)$
- $3(6a + 4)$
- $-3(4 - 6a)$

10. An expression is given:

$$-6m + 9n - 12$$

Use a negative factor to factor the expression.

11. Carlos drove $8x + 13$ miles in two days. If he drove $3x + 5$ miles on the first day, how many miles did he drive on the second day?

12. What is the coefficient of r in the sum of $(\frac{4}{9}r + \frac{2}{3})$ and $(\frac{1}{3}r + s)$?

- (A) $\frac{4}{12}$
- (B) $\frac{7}{9}$
- (C) $\frac{2}{3}$
- (D) $\frac{4}{9}$

13. An expression is given: $-\frac{3}{5}z - \frac{1}{2}$
Select all expressions that are equivalent.

- $-\frac{3}{5}z + \frac{1}{2}$
- $\frac{3}{5}z + \frac{1}{2}$
- $-\frac{1}{2} - \frac{3}{5}z$
- $-\frac{3}{5}z + (-\frac{1}{2})$
- $\frac{1}{2} - \frac{3}{5}z$

14. An expression is given: $\frac{3h}{8}$
Which expression is equivalent?

- (A) $3h \div 8$
- (B) $\frac{3}{8h}$
- (C) $8 \div 3h$
- (D) $\frac{8h}{3}$

15. Find the difference of the two expressions.

$$(\frac{5}{6}a - \frac{1}{5}b - 8) - (\frac{2}{3}a - \frac{7}{10}b - 3)$$

Name _____

1. The sales tax rate is 6%. If the price of a movie ticket is x dollars. Write an expression for the cost of the ticket including the tax.

2. Members of a store's reward program earn 10% of their purchases in points. Which expression represents the points earned on a purchase of p dollars?

- (A) $p + 10$
 (B) $10p$
 (C) $0.90p$
 (D) $0.10p$

3. The cost of renting a car is \$26.50 plus \$10 per day. Sales tax is 6%.

Select all expressions that represent the cost of renting a car for d days.

- $1.06(26.50 + 10d)$
 $28.09d$
 $26.50 + 6d$
 $28.09 + 10.6d$
 $26.50 + 1.06d$

4. The astronomy club has x members and wants to increase membership by 25%. Write an expression for the number of members if the goal is reached.

5. A store increases profits by marking up the price of soda by 15%. Which expression represents the new price of soda if the original cost is s dollars?

- (A) $0.15s$
 (B) $1.15s$
 (C) $0.85s$
 (D) $s + 15$

6. Marco's parents want to encourage him to save money during the 8 weeks of summer. They agree to add 15% to the balance of his savings account. If Marco saves x dollars a week, which expression represents the money he has at the end of summer?

- (A) $1.15(8x)$
 (B) $0.15(8x)$
 (C) $120x$
 (D) $1.15(x + 8)$

7. James runs laps around the park. The distance of a lap is d yards. On Monday, James runs 4 laps, Tuesday 3 laps, Thursday 5 laps and Saturday 6 laps. Write an expression for the distance James ran during the week.

8. A discount site decreases the price of cell phones by 60%. Select all the expressions that represent the discounted price of a phone costing d dollars.

- $d - 0.60$
 $0.40d$
 $d - 0.60d$
 $0.60d$
 $1 - 0.60d$

9. Match the algebraic and word expressions

	$0.20x$	$20 - x$	$1.20x$	$0.80x$
x increased by 20%	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20% of x	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
x decreased by 20%	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20 decreased by x	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

10. An office decreases paper waste by 35%. Originally the office produces w pounds of waste.

Part A

Which expression represents the waste reduction?

- (A) $w - 35$
 (B) $1.35w$
 (C) $0.35w$
 (D) $w - 0.35w$

Part B

How much paper waste do they produce now, if they originally produced 8 pounds per month?

11. The coach of a baseball team counts 240 males and n females in the bleachers. She determines that 80% of the male and female spectators are fans of the home team. The coach writes an expression $0.80n + 192$ to represent the number of home team fans. Is the coach correct?

- (A) The coach is not correct because there were more than 192 fans.
 (B) The coach is correct because the number of home town fans is 192
 (C) The coach is correct because the original expression $0.80(n + 240)$ is equivalent to $0.80n + 192$
 (D) The coach is not correct because the original expression $0.80(n + 240)$ is not equivalent to $0.80n + 192$

12. Amy reads 12% of a 356-page book each night.

Part A

Which expression represents the number of unread pages if Amy reads for x nights?

- (A) $356(0.12x)$
 (B) $(0.12x - 1)356$
 (C) $356 - 0.88x$
 (D) $356(1 - 0.12x)$

Part B

How many pages does Amy have left after 6 nights of reading?