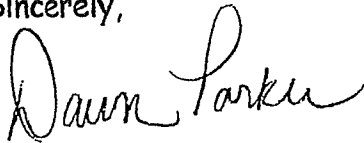


Dear Parents and Students,

Attached, please find this year's summer practice packet for math. These packets will be due to the homeroom or mathematics teacher on the first day of school and will count as a grade for the first trimester. Please see rubric below for grading details. As you will see on the rubric, in order to receive the full 30 points, all problems must be complete, neat and organized, with detailed work shown for each problem (where applicable). Thank you in advance for your focused effort on this year's summer math packet. It is our hope that completing the math packet will reinforce the skills taught this year. We hope you enjoy a fantastic summer and look forward to working with you again this fall.

Sincerely,



Dawn Parker

.....

### Summer Math Packet Rubric

Name: \_\_\_\_\_

A. All problems in the packet are complete.

Points:      10              8              6              4              2

B. Detailed work process is shown for each problem (use extra paper as needed).

Points:      10              8              6              4              2

C. Work is neat and organized.

Points:      5              4              3              2              1

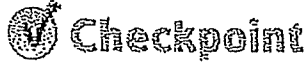
D. Summer Practice Packet is handed in on time (the first day of school). One point will be deducted for each day the assignment is late.

Points:      5              4              3              2              1

Total Points Possible: 30

Points Earned: \_\_\_\_\_

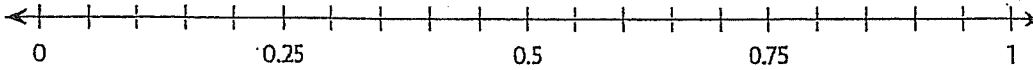
Name \_\_\_\_\_



### Concepts and Skills

Locate each number on the number line. Then complete the sentence. (pp. P245-P246)

1.  $0.4, \frac{3}{5}, 0.35$



The number with the least value is \_\_\_\_\_.

Write the numbers in order from least to greatest. (pp. P247-P248)

2.  $0.4, \frac{3}{5}, 0.55, \frac{1}{4}$

3.  $\frac{3}{4}, 0.7, \frac{1}{2}, 0.1$

\_\_\_\_\_

\_\_\_\_\_

Use a factor tree to find the prime number factors. (pp. P249-P250)



\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Write a decimal, a percent, or a simplified fraction. (pp. P251-P256)

7. 0.08 as a percent

8.  $\frac{3}{5}$  as a decimal

9. 80% as a fraction

10.  $\frac{13}{20}$  as a percent

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

### Problem Solving REAL WORLD

For 11–12, use the data in the table. (pp. P251-P256)

11. What percent of the apes in the Wild Country Zoo are orangutans?

\_\_\_\_\_

12. One species makes up 40% of the apes in the zoo. Which species is it?

\_\_\_\_\_

Apes in the Wild Country Zoo	
Species	Number
Bonobo	4
Chimpanzee	20
Gorilla	15
Orangutan	11
Total	50

Fill in the bubble or grid completely to show your answer.

13. Entries for the Lake Manatee Bass Fishing Contest are shown. First place is awarded to the contestant with the heaviest fish.



Lake Manatee Bass Contest	
Contestant	Weight of fish caught
George	6.25 pounds
Mia	$6\frac{2}{5}$ pounds
Harvey	$6\frac{1}{3}$ pounds

What is the correct order from first place to third place? (pp. P247-P248)

- (A) First: George, Second: Mia, Third: Harvey  
(B) First: Mia, Second: George, Third: Harvey  
(C) First: Mia, Second: Harvey, Third: George  
(D) First: Harvey, Second: Mia, Third: George
14. Ric used a factor tree to write 180 as a product of factors that are prime numbers. How many factors were in Ric's product? (pp. P249-P250)
- (A) 2  
(B) 3  
(C) 4  
(D) 5
15. On Monday, 6% of the students at Riverside School were absent. Written as a decimal, what portion of Riverside's students attended school that day? (pp. P253-P254)
- (A) 0.06  
(B) 0.6  
(C) 0.94  
(D) 9
16. The Hastings family drove  $\frac{12}{25}$  of the distance to Yellowstone National Park on the first day of their vacation. What percent of the distance to the park remained for them to drive? (pp. P255-P256)
- (A) 12%                      (C) 48%  
(B) 13%                      (D) 52%

Name \_\_\_\_\_

## Checkpoint

### Concepts and Skills

Draw a model to find the quotient. Write the quotient in simplest form. (pp. P259–P260)

1.  $\frac{3}{4} \div 3$

2.  $\frac{2}{3} \div 5$

3.  $\frac{3}{7} \div 2$

\_\_\_\_\_

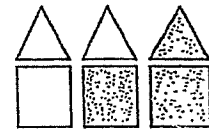
For 4–6, use the drawing to write the ratio. (pp. P261–P262)

4. squares to triangles

5. total to dark

6. triangles to total

\_\_\_\_\_



Write the equivalent ratio. (pp. P263–P264)

7. 8 to 3 = \_\_\_\_\_ to 12

8. 2 to 6 = 4 to \_\_\_\_\_

9. 11:4 = \_\_\_\_\_:16

Find the unit rate. (pp. P265–P266)

10. 45 visitors with 5 tour guides

11. 450 mi on 15 gal of gas

12. \$56 in 8 hr

\_\_\_\_\_

Use the formula  $d = r \times t$  to solve the problem. Include the units in your answer. (pp. P267–P268)

13.  $d =$  \_\_\_\_\_

14.  $d = 90$  ft

15.  $d = 300$  mi

$r = 40$  km per hr

$r = 10$  ft per sec

$r =$  \_\_\_\_\_

$t = 3$  hr

$t =$  \_\_\_\_\_

$t = 4$  hr

### Problem Solving REAL WORLD

Use the table for 16–17. (pp. P265–P268)

16. Fuel efficiency can be written as a rate comparing the distance driven to the gallons of gas used. What is the fuel efficiency of Car A written as a unit rate?

\_\_\_\_\_

17. During the test, Car B was driven at the speed of 48 miles per hour. How long did the test take?

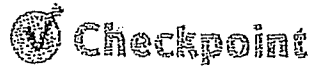
\_\_\_\_\_

Fuel Test Results		
Car	Distance (in mi)	Gas (in gal)
A	308	14
B	288	12

Fill in the bubble completely to show your answer.

18. To make fruit punch for a party, Alison used 3 quarts of pineapple juice and 2 gallons of orange juice. There are 4 quarts in a gallon. What is the ratio of pineapple to orange juice in quarts? (pp. P261-P262)
- Ⓐ 3 to 2  
 Ⓑ 3 to 5  
 Ⓒ 3 to 8  
 Ⓓ 8 to 3
19. Three out of every 10 pairs of skis sold by Snow Sports are cross-country skis. Snow Sports sold 450 pairs of skis during the winter season. How many of the skis were likely to have been cross-country skis? (pp. P263-P264)
- Ⓐ 443  
 Ⓑ 135  
 Ⓒ 45  
 Ⓓ 30
20. At Greentree Elementary School, there are 72 fifth graders in 3 classrooms. What unit rate describes this situation? (pp. P265-P266)
- Ⓐ  $14\frac{2}{5}$  fifth graders per class  
 Ⓑ 18 fifth graders per class  
 Ⓒ 24 fifth graders per class  
 Ⓓ 216 fifth graders per class
21. Eduardo rides his bicycle for 6 hours. What was Eduardo's average speed if he rides a distance of 84 miles? Use the formula  $d = r \times t$ . (pp. P267-P268)
- Ⓐ 504 mi per hr  
 Ⓑ 90 mi per hr  
 Ⓒ 78 mi per hr  
 Ⓓ 14 mi per hr

Name \_\_\_\_\_



## Concepts and Skills

Write an integer to represent the situation. (pp. P271–P272)

1. a shark 125 feet below sea level \_\_\_\_\_      2. a bank deposit of 300 dollars \_\_\_\_\_

Write an integer to represent the situation. Then, tell what 0 represents. (pp. P271–P272)

Situation	Integer	What Does 0 Represent?
3. a gain of 13 yards by a football team	_____	
4. a temperature of 25 degrees below zero	_____	

Write an expression. Then evaluate the expression for the value given. (pp. P273–P274)

5. Miki has  $n$  dollars. Dora has 3 more dollars than Miki. How many dollars does Dora have? Evaluate for  $n = 14$ .
6. Chip has  $s$  shells. Gina has 4 times as many shells as Chip. How many shells does Gina have? Evaluate for  $s = 6$ .

Of 1, 3, 4, and 8, which numbers are solutions for the inequality? (pp. P275–P276)

7.  $a < 7$                       8.  $b \geq 3$                       9.  $c > 4$                       10.  $d \leq 8$

## Problem Solving

Filters are set up to sort pennies, dimes, and nickels. A penny is 19 mm wide, a dime is 17.9 mm wide, and a nickel is 21 mm wide. Coins less than 20 mm wide will pass through the first level, and coins less than 18.5 mm wide will pass through the second level. (pp. P275–P276)

drop coins.



11. If you drop a large number of all 3 coins from above, which coins will be caught at Level 1? Which coins will pass through?



12. Which coins will be caught at Level 2? Which coins will pass through? \_\_\_\_\_

Fill in the bubble completely to show your answer.



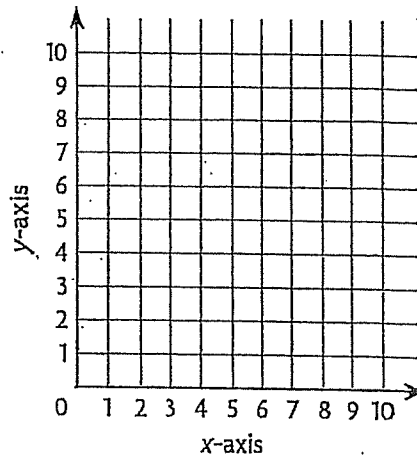
13. The lowest temperature ever recorded in North Dakota was 60 degrees below zero Fahrenheit. Which integer represents the temperature? (pp. P271-P272)
- (A) 0  
(B) 60  
(C) -60  
(D) -0
14. In football, a team receives 3 points for each field goal it makes. Which expression shows the number of points a team will receive for making  $f$  field goals? (pp. P273-P274)
- (A)  $3 + f$   
(B)  $3 \times f$   
(C)  $f - 3$   
(D)  $f \div 3$
15. The elevation of Central City is 84 feet above sea level. Which integer is the opposite of 84? (pp. P271-P272)
- (A) 48  
(B) +84  
(C) -48  
(D) -84
16. Uncle Louie is at least 1 inch shorter than Miriam, and at least 2 inches taller than Jeffrey. Jeffrey's height is 64 inches. Miriam is not more than 5 inches taller than Jeffrey. Which answer choice could be Uncle Louie's height? (pp. P275-P276)
- (A) 65 inches  
(B) 67 inches  
(C) 69 inches  
(D) 70 inches

Name \_\_\_\_\_

## Checkpoint

### Concepts and Skills

1. Plot and identify the polygon with vertices at (4, 0), (8, 7), (4, 7), and (8, 0). (pp. P279–P280)  
\_\_\_\_\_
2. A parallelogram has a base of 8.5 cm and a height of 6 cm. What is the area of the parallelogram? (pp. P281–P282)  
\_\_\_\_\_
3. Find the median and mode of Erin's math scores:  
93, 88, 85, 93, 100, 94, 85, 89. (pp. P283–P284)  
median \_\_\_\_\_ mode \_\_\_\_\_
4. Find the average of the following temperatures:  
59°F, 66°F, 59°F, 67°F, 54°F, 64°F, 72°F. (pp. P285–P286)  
average \_\_\_\_\_



For 5–7, use the data below. (pp. P287–P290)

The math test scores for Miss Jackson's class are given below.

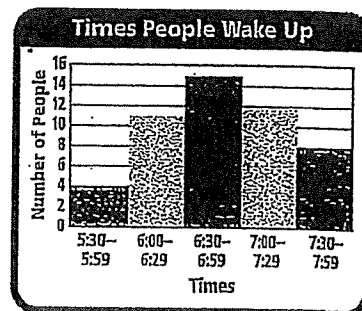
88, 94, 86, 78, 65, 83, 71, 74, 92, 73,  
95, 71, 100, 98, 68, 85, 81, 93, 89, 84

5. Make a histogram for the data using intervals of 10.
6. Which interval has the greatest frequency?  
\_\_\_\_\_
7. How many students received grades greater than 80? \_\_\_\_\_

### Problem Solving **REAL WORLD**

For 8–9, use the histogram. The histogram shows the times that people wake up in the morning. (pp. P287–P290)

8. How many people were surveyed? \_\_\_\_\_
9. How many more people surveyed wake up between 6:30 and 6:59 than between 7:30 and 7:59?  
\_\_\_\_\_





Fill in the bubble completely to show your answer.



10. On a map of the town of Barton, City Hall Park has three of its four vertices at (15, 0), (5, 0), and (15, 9). City Hall Park is a rectangle. What are the coordinates of the park's fourth vertex? (pp. P279-P280)

- (A) (5, 9)
- (B) (9, 5)
- (C) (5, 15)
- (D) (9, 15)

11. A window at an art gallery is shaped like a parallelogram. The base measures 1.2 meters and the height measures 0.8 meters. What is the area of the window? (pp. P281-P282)

- (A) 0.48 sq m
- (B) 0.96 sq m
- (C) 1.92 sq m
- (D) 2.0 sq m

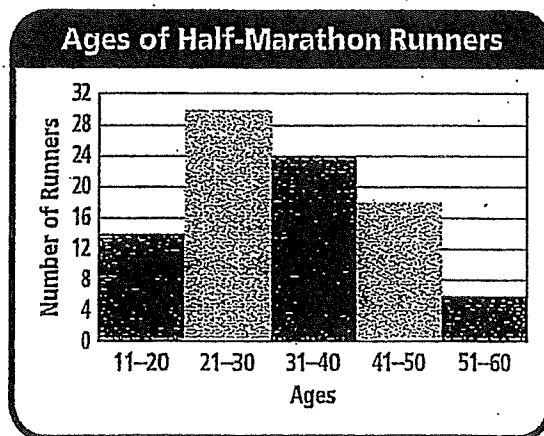
12. The ages of the members of the Chess Club are given below. What is the median age? (pp. P283-P284)

13, 9, 10, 9, 14, 13, 8, 9

- (A) 9
- (B) 9.5
- (C) 10
- (D) 10.5

13. The histogram shows the ages of runners in a half-marathon. How many runners are between the ages of 21 and 40? (pp. P289-P290)

- (A) 24
- (B) 30
- (C) 42
- (D) 54



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# Subtraction of integers

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## Grade 6 Integers Worksheet

Find the difference.

1.  $-2 - 8 =$  \_\_\_\_\_ 2.  $-6 - 0 =$  \_\_\_\_\_ 3.  $7 - 9 =$  \_\_\_\_\_

4.  $8 - -9 =$  \_\_\_\_\_ 5.  $-1 - -2 =$  \_\_\_\_\_ 6.  $0 - -8 =$  \_\_\_\_\_

7.  $-4 - 2 =$  \_\_\_\_\_ 8.  $7 - 0 =$  \_\_\_\_\_ 9.  $-5 - 8 =$  \_\_\_\_\_

10.  $9 - -7 =$  \_\_\_\_\_ 11.  $-1 - 7 =$  \_\_\_\_\_ 12.  $-3 - 8 =$  \_\_\_\_\_

13.  $0 - 5 =$  \_\_\_\_\_ 14.  $2 - 2 =$  \_\_\_\_\_ 15.  $-7 - 5 =$  \_\_\_\_\_

16.  $5 - 7 =$  \_\_\_\_\_ 17.  $-3 - 9 =$  \_\_\_\_\_ 18.  $-6 - -9 =$  \_\_\_\_\_

19.  $-6 - 7 =$  \_\_\_\_\_ 20.  $-4 - 7 =$  \_\_\_\_\_ 21.  $3 - -4 =$  \_\_\_\_\_

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# Addition of Integers (-10 to +10)

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## Grade 6 Integers Worksheet

Find the sum.

1.  $-2 + 3 =$  \_\_\_\_\_ 2.  $0 + -6 =$  \_\_\_\_\_ 3.  $7 + 1 =$  \_\_\_\_\_

4.  $-6 + 4 =$  \_\_\_\_\_ 5.  $2 + 4 =$  \_\_\_\_\_ 6.  $5 + 10 =$  \_\_\_\_\_

7.  $-6 + 0 =$  \_\_\_\_\_ 8.  $-9 + -1 =$  \_\_\_\_\_ 9.  $0 + -4 =$  \_\_\_\_\_

10.  $-5 + -5 =$  \_\_\_\_\_ 11.  $-8 + -2 =$  \_\_\_\_\_ 12.  $-8 + -1 =$  \_\_\_\_\_

13.  $1 + -7 =$  \_\_\_\_\_ 14.  $5 + -6 =$  \_\_\_\_\_ 15.  $-3 + -3 =$  \_\_\_\_\_

16.  $-4 + -9 =$  \_\_\_\_\_ 17.  $-8 + -7 =$  \_\_\_\_\_ 18.  $3 + -5 =$  \_\_\_\_\_

19.  $-3 + -2 =$  \_\_\_\_\_ 20.  $-8 + -5 =$  \_\_\_\_\_ 21.  $7 + 7 =$  \_\_\_\_\_

22.  $6 + -1 =$  \_\_\_\_\_ 23.  $10 + 0 =$  \_\_\_\_\_ 24.  $5 + -5 =$  \_\_\_\_\_

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