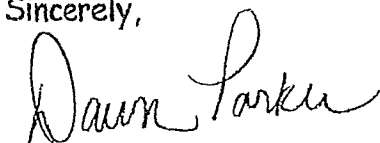Dear Parents and Students,

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 e ach day the assignment is late.

Points:	5	4	3	2	1

Total Points Possible: 30   Points Earned: _____

Multiplication Facts Weekly Log

It is imperative that your incoming seventh grade student has mastered his/her multiplication facts (0-12). Please be sure your student practices each week for 20 minutes and sign the log.

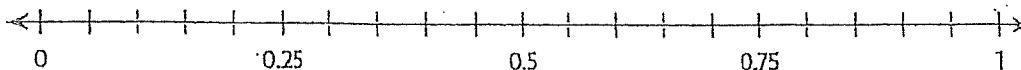| Week Of...	Parent Signature
July 6, 2025	
July 13, 2025	
July 20, 2025	
July 27, 2025	
August 3, 2025	
August 10, 2025	
August 17, 2025	
August 24, 2025	
August 31, 2025	

Name _____

✓ Checkpoint
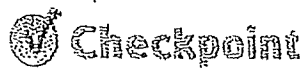
Concepts and Skills

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

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

    0   0.25   0.5   0.75   1

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)

4.   16   5.   36   6.   42

_____

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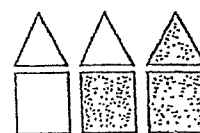
1. $\frac{3}{4} \div 3$

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. $d =$ _____

$r = 40$ km per hr

$t = 3$ hr

14. $d = 90$ ft

$r = 10$ ft per sec

$t =$ _____

15. $d = 300$ mi

$r =$ _____

$t = 4$ 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)

    (A) 3 to 2

    (B) 3 to 5

    (C) 3 to 8

    (D) 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)

    (A) 443

    (B) 135

    (C) 45

    (D) 30

20. At Greentree Elementary School, there are 72 fifth graders in 3 classrooms. What unit rate describes this situation? (pp. P265-P266)

    (A) $14\frac{2}{5}$ fifth graders per class

    (B) 18 fifth graders per class

    (C) 24 fifth graders per class

    (D) 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)

    (A) 504 mi per hr

    (B) 90 mi per hr

    (C) 78 mi per hr

    (D) 14 mi per hr

Name _____

Checkpoint
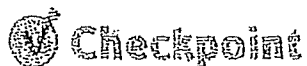
Concepts and Skills

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 REAL WORLD

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.

Level 1 20 mm

Level 2 18.5 mm

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? _____
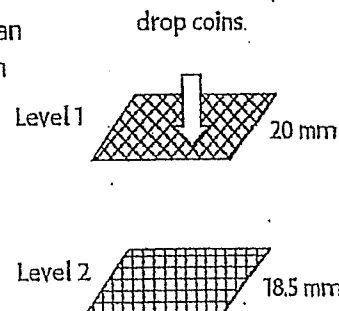
Fill in the bubble completely to show your answer.

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) $3 \div f$

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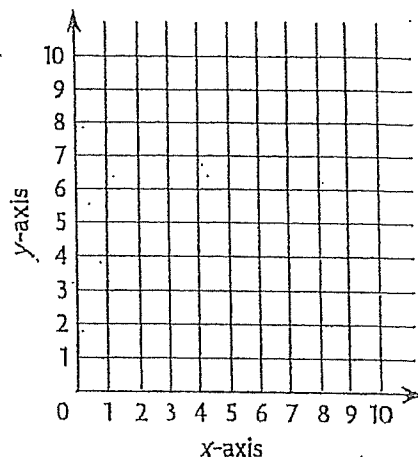
For 5–7, use the data below. (pp. P287–P290)

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?

   _____

Times People Wake Up
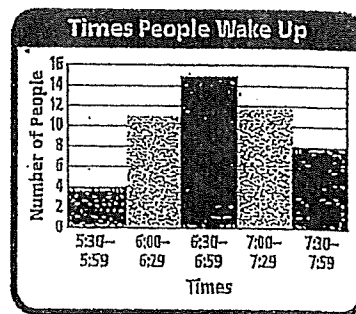
Fill in the bubble completely to show your answer.

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

Ages of Half-Marathon Runners
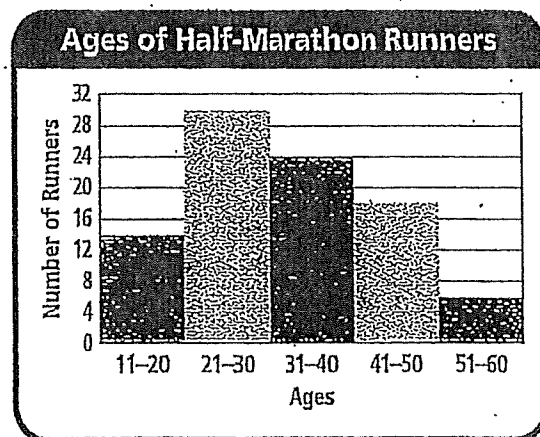
Name_____

Least Common Multiple

Date_____ Period_____

Find the LCM of each.

1) 10, 3

2) 14, 6

3) 15, 6

4) 15, 20

5) 27, 18

6) 4, 30

7) 24, 32

8) 20, 30

9) 24, 36

10) 35, 25

11) $18xy^2, 15y^3$

12) $20x^3, 16x^4$

Relate Fractions, Decimals, and Percents #2

Complete each row of the table by filling in the missing numbers. Write all fractions in simplest form.

Fraction	Decimal	Percent
$\frac{7}{50}$	0.14	14%
$\frac{8}{25}$		
		7%
$\frac{3}{4}$		
	0.91	
$\frac{1}{5}$		
		97%
$\frac{14}{25}$		
	0.48	
		66%
	0.3	
		18%

Name _____ Date _____

Dividing Fractions by Fractions

You can divide a fraction by a fraction by multiplying by its reciprocal instead. Let's try it! Solve $\frac{1}{3} \div \frac{3}{5}$.

First, find the reciprocal of the divisor. You can do this by switching the numerator and denominator.

$$\frac{3}{5} \rightarrow \frac{5}{3}$$

Next, change the division problem into a multiplication problem. Multiply by the reciprocal that you found above. Make sure your answer is in simplest form.

$$\frac{1}{3} \div \frac{3}{5} = \frac{1}{3} \times \frac{5}{3} = \frac{5}{9}$$

- -
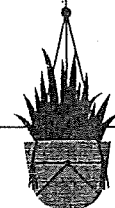
Try it yourself! Divide. Show your work and write your final answer in simplest form.

$\frac{2}{5} \div \frac{3}{4} =$	$\frac{2}{7} \div \frac{1}{2} =$
$\frac{1}{6} \div \frac{3}{8} =$	$\frac{1}{12} \div \frac{4}{9} =$
$\frac{4}{11} \div \frac{5}{7} =$	$\frac{5}{8} \div \frac{7}{10} =$
$\frac{5}{9} \div \frac{7}{12} =$	$\frac{9}{14} \div \frac{5}{6} =$
$\frac{11}{20} \div \frac{4}{5} =$	$\frac{2}{3} \div \frac{13}{16} =$

Integer Subtraction Rules

When you subtract an integer, it's the same as **adding** the **opposite**. So, you can change a subtraction problem into an addition problem. Take a closer look at these examples.

$$-6 - 2 \rightarrow -6 + (-2)$$

$$-4 - (-1) \rightarrow -4 + 1$$

Then use the same rules as adding integers:

$$-6 + (-2) = -8$$

$$-4 + 1 = -3$$

Since these numbers have the same sign, find the sum. The answer will be negative because both numbers are negative.

Since these numbers have different signs, find the difference. The answer will be negative because -4 has the larger absolute value.

Use integer subtraction rules to determine if the answer to each problem will be positive or negative. The first one has been done for you.

3 – (-7)	-8 – 5	-9 – (-1)	6 – 10	-1 – (-4)
⊕ −	+ −	+ −	+ −	+ −
12 – (-9)	-7 – (-11)	-16 – 5	13 – (-8)	-19 – 2
+ −	+ −	+ −	+ −	+ −
-14 – (-21)	-18 – 12	24 – (-10)	17 – 29	12 – (-13)
+ −	+ −	+ −	+ −	+ −

Solve each problem. Use integer subtraction rules to help!

-6 – 4 = _____	2 – 8 = _____	7 – (-6) = _____	-9 – 3 = _____
1 – 5 = _____	-4 – 8 = _____	-2 – (-3) = _____	11 – (-6) = _____
-20 – (-7) = _____	16 – 18 = _____	-23 – (-12) = _____	15 – 21 = _____

Integer Addition Rules

When adding integers with the **same** sign, find the sum of the numbers. The answer will have the same sign as the original numbers.	When adding integers with **different** signs, find the difference of the numbers. The answer will have the sign of the number with the larger absolute value.
$2 + 6 = 8$	$-8 + 10 = 2$
$-9 + (-3) = -12$	$1 + (-7) = -6$

Use integer addition rules to determine if the answer to each problem will be positive or negative. The first one has been done for you.

$-6 + 8$	$5 + 2$	$-7 + (-3)$	$1 + (-4)$	$-8 + (-9)$
⊕ −	+ −	+ −	+ −	+ −
$10 + (-7)$	$-20 + (-6)$	$-11 + 4$	$-2 + (-18)$	$12 + (-9)$
+ −	+ −	+ −	+ −	+ −
$-24 + (-21)$	$18 + (-15)$	$-19 + 27$	$15 + (-11)$	$-16 + (-23)$
+ −	+ −	+ −	+ −	+ −

Solve each problem. Use integer addition rules to help!

$-4 + (-5) = $ _____	$6 + (-7) = $ _____	$-2 + (-3) = $ _____	$-7 + 8 = $ _____
$1 + (-8) = $ _____	$-9 + 1 = $ _____	$-5 + (-6) = $ _____	$8 + (-12) = $ _____
$-10 + (-4) = $ _____	$-4 + 11 = $ _____	$13 + (-7) = $ _____	$-14 + (-2) = $ _____
$20 + (-11) = $ _____	$-15 + 17 = $ _____	$-18 + (-12) = $ _____	$-22 + (-22) = $ _____