

Name _____ Class _____

The Police Officer Rocco Laurie, Intermediate School 72
Grade 5 to 6 – Summer 2020 Math Packet

Directions: All of the questions in this packet reflect fifth grade math standards. Please answer all of the questions and return this packet to your new math teacher in September.

- All work needs to be shown, even for multiple choice questions.
- When answering the short response questions, show all work and write your explanations using good math vocabulary and grammar.

Enjoy your summer vacation and we look forward to seeing you in September at IS 72!

Part 1: Multiple Choice – Circle the letter next to the choice that best answers each question.

1. What is the value of 7 in 1.207?

- A 7×0.1 C 7×0.001
B 7×0.01 D 7×0.0001

2. Which symbol makes the statement true?

0.025 ○ 0.052

- A = C >
B < D \approx

3. Which of the following shows 2.1851 rounded to the nearest tenth?

- A 2.1 C 2.19
B 2.185 D 2.2

4. William bought 6 CDs for \$8.97 each. About how much did he spend?

- A \$9 C \$54
B \$48 D \$60

5. There were 630 concert tickets sold. Each ticket cost \$21. How much money was raised from selling the tickets?

- A \$1,890 C \$12,600
B \$12,230 D \$13,230

6. What is the value of the expression below?

$2,686 \div 34$

- A 77 C 88
B 79 D 97

7. Candace knows that $4 \times 36 = 144$. Given that, what is the value of 4×0.36 ?
- A 0.0144 C 1.44
 B 0.144 D 14.4

8. What is the value of the expression below?

$$12.96 \div 27$$

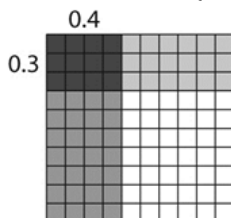
- A 0.48 C 48
 B 4.8 D 480

9. What is the value of the expression below?

$$\frac{2}{3} + \frac{1}{6}$$

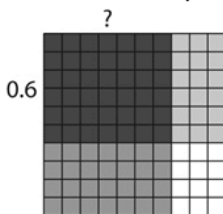
- A $\frac{1}{2}$ C $\frac{3}{12}$
 B $\frac{3}{9}$ D $\frac{5}{6}$

10. The grid below shows the product of 0.3 and 0.4. What is that product?



- A 0.012 C 1.2
 B 0.12 D 12

11. The grid below shows the quotient of $0.42 \div 0.6$. What is that quotient?



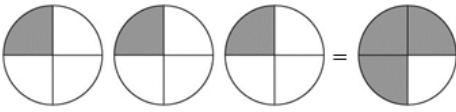
- A 0.06 C 0.6
 B 0.07 D 0.7

12. Pat needs boards that are $\frac{1}{2}$ foot long.

Which equation shows how many $\frac{1}{2}$ -foot pieces he can get from a 4-foot long board?

- A $4 + \frac{1}{2} = 4\frac{1}{2}$ C $4 \div \frac{1}{2} = 8$
 B $4 \times \frac{1}{2} = 2$ D $\frac{1}{2} \div 4 = \frac{1}{8}$

13. Jake drew the diagram below. Which number sentence does the picture show?



- A $\frac{1}{4} \times 3 = \frac{3}{4}$ C $\frac{1}{3} \times 4 = \frac{3}{4}$
 B $\frac{1}{4} \div 3 = \frac{3}{4}$ D $3 \div \frac{1}{4} = \frac{3}{4}$

14. What is the value of the expression below?

$$5 \times 10^6$$

- A 5,000,000 C 50,000,000
 B 6,000,000 D 60,000,000

15. Joy put 6 photos on each page of her album. When she was done, she had 2 pictures left over. She put 38 pictures in the album. Which equation can be used to find how many pages Joy filled?

- A $38 \div x = 6 + 2$ C $38 = 6x + 2$
 B $38 = 2x + 6$ D $38 = \frac{x}{6} + 2$

16. Which list shows the pattern you would get if you used the rule $12n$?

- A 12, 14, 16, 18 C 12, 13, 14, 15
 B 12, 24, 36, 48 D 12, 22, 42, 52

17. Find the value of the expression below.

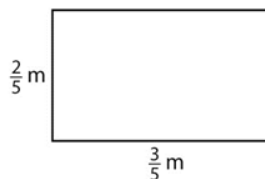
$$[(10 + 26) \div 6] \div 3$$

- A 2 C 18
 B 6 D 36

18. Al has a roll of 4 feet of ribbon. How many 8-inch pieces can he cut from the roll?

- A 2 pieces C 6 pieces
 B 5 pieces D 8 pieces

19. Avisha is painting a picture on the canvas shown below.



What is the area of the canvas?

- A $\frac{2}{5} \text{ m}^2$ C $\frac{6}{5} \text{ m}^2$
 B $\frac{3}{5} \text{ m}^2$ D $\frac{6}{25} \text{ m}^2$

20. Vinh solved the equation below.

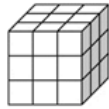
$$7 \div \frac{1}{6} = 42$$

Which of the following can Vinh use to check his work?

- A $42 \times \frac{1}{3} = 14$ C $42 \times \frac{6}{7} = 6$
B $42 \times \frac{1}{6} = 7$ D $42 \times \frac{6}{7} = 36$
21. Which list of terms describes the figure below in as many ways as possible?



- A square, parallelogram
B rectangle, quadrilateral
C trapezoid, parallelogram, quadrilateral
D parallelogram, quadrilateral
22. Jalyn built a large cube out of smaller cubes. Each small cube is 1 cubic unit. What is the volume of the large cube?



- A 9 cubic units C 18 cubic units
B 12 cubic units D 27 cubic units
23. Lu is graphing the ordered pair (3, 5). Starting at the origin, what does she need to do?
- A Move 3 units up and 5 units to the right, and draw a dot at that point.
B Move 3 units up and 3 units to the right, and draw a dot at that point.
C Move 3 units to the right and 5 units up, and draw a dot at that point.
D Move 5 units to the right and 3 units up, and draw a dot at that point.
24. Emily built a rectangular prism out of cubes. The first layer has 5 rows of 4 cubes each. There are 3 layers. What is the volume of the prism?
- A 12 cubic units C 20 cubic units
B 15 cubic units D 60 cubic units

25. Rosemary is wrapping gifts. Each gift is decorated with a bow that is made of 60 centimeters of ribbon. Rosemary has 3 meters of ribbon. How many gifts can she put bows on?

- A 5 gifts C 50 gifts
 B 6 gifts D 60 gifts

26. Which of these is **not** a formula that can be used to find the volume of a cube?

- A $l \times w \times h$
 B $2(\ell + w)$
 C $s \times s \times s$
 D Bh

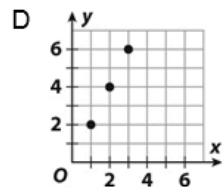
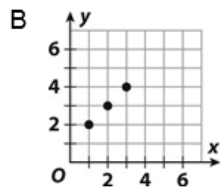
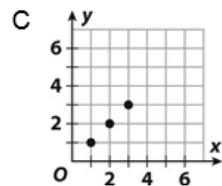
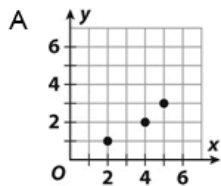
27. Without calculating the answer, is $\frac{1}{3} \times \frac{7}{15}$

greater than or less than $\frac{1}{3}$?

- A the same
 B less than
 C greater than
 D impossible to tell

28. The table below shows the number of books read by Beth. Which graph shows this relationship?

| | | | |
|-----------------|---|---|---|
| Number of Weeks | 1 | 2 | 3 |
| Number of Books | 2 | 4 | 6 |



29. Use the two patterns below.

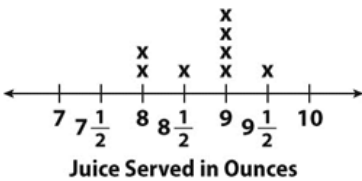
Add 4: 0, 4, 8, 12, 16, 20, 24
Add 2: 0, 2, 4, ...

What are the first four ordered pairs formed from corresponding terms of the two patterns?

- A (0, 1), (2, 2), (4, 3), (6, 4)
 - B (1, 4), (2, 8), (3, 12), (4, 16)
 - C (0, 2), (4, 4), (8, 6), (10, 8)
 - D (0, 0), (4, 2), (8, 4), (12, 6)
30. Without calculating the answer, will $6\frac{1}{4} \times \frac{3}{4}$ be greater than or less than $6\frac{1}{4}$?

- A the same
- B less than
- C greater than
- D impossible to tell

31. The line plot below shows the number of ounces of juice Daniel poured into glasses.



Which shows the number of ounces Daniel would have poured if he had poured the same amount into each glass?

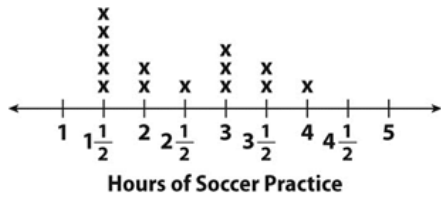
- A 8 ounces
 - B $8\frac{3}{4}$ ounces
 - C 9 ounces
 - D $9\frac{1}{2}$ ounces
32. Use the fraction model below.



Pia sewed 7 skirts. Each skirt used $\frac{2}{5}$ yard of fabric. How much fabric did Pia use altogether?

- A $1\frac{1}{5}$ yards
- B $2\frac{1}{5}$ yards
- C $2\frac{4}{5}$ yards
- D $7\frac{1}{5}$ yards

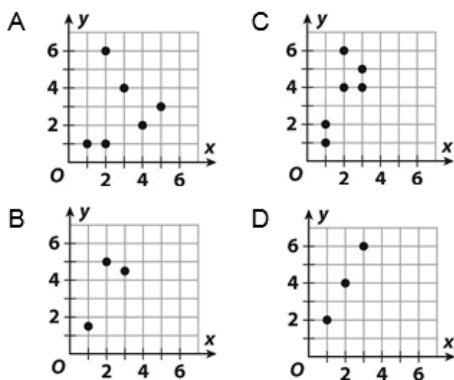
33. The line plot below shows the hours of soccer practice that Bianca had.



How many hours of soccer practice did Bianca have altogether?

- A 16.5 hours C 34 hours
 B 28 hours D 49.5 hours
34. The table below shows data for 6 softball players. It shows the number of hours each player practiced last week. It also shows the number of hits each player got in yesterday's game. Which graph shows this relationship?

| | | | | | | |
|----------------|---|---|---|---|---|---|
| Practice Hours | 1 | 2 | 3 | 1 | 2 | 3 |
| Number of Hits | 2 | 4 | 5 | 1 | 6 | 4 |



35. Phil ate $\frac{2}{5}$ of a pizza. Caroline ate $\frac{1}{4}$ of a pizza. How much did they eat in all?

- A $\frac{1}{3}$ pizza C $\frac{13}{20}$ pizza
 B $\frac{2}{9}$ pizza D $1\frac{1}{3}$ pizza

36. Look at the pattern below. How should the third shape be labeled?



1 $1 \div 2$, or $\frac{1}{2}$?

- A $\frac{1}{2} \div \frac{1}{2}$, or $\frac{1}{4}$ C $\frac{1}{2} \div \frac{1}{2}$, or 4
 B $\frac{1}{2} \div 2$, or $\frac{1}{4}$ D $\frac{1}{2} \div 2$, or 4

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Part 2: Short Response – Answer all questions in this part. Write your answer in the space provided. Show all necessary work.

37. Students are weighing two types of rubber balls during science class.

- Each yellow rubber ball weighs 1.28 pounds.
- Each red rubber ball weighs 0.96 pound.

What is the total weight of 25 yellow rubber balls and 50 red rubber balls?

Answer: _____ yellow _____ red

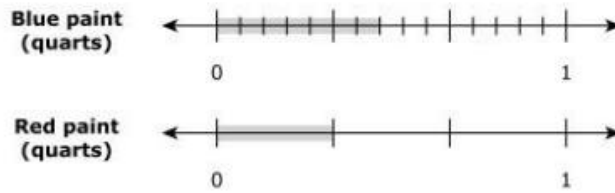
38. A gardening shop receives a shipment of 12 crates of plants. Each crate contains 18 plants. A worker displays all the plants on 24 shelves with the same number of plants on each shelf. How many plants are displayed on each shelf?

Answer: _____ plants

39. A space heater warms the temperature of a room by $\frac{2}{3}$ of a degree Fahrenheit each minute. By how many degrees Fahrenheit will the space heater warm the room in $6\frac{1}{2}$ minutes?

Answer: _____ degrees

40. **Part A:** The number lines represent the amount of blue and red paint a student mixes together to make purple paint.



What is the total amount of purple paint, in quarts, the student makes?

Answer: _____ quarts of purple paint

- Part B** The student has $\frac{2}{3}$ quart of yellow paint in a container. The student uses $\frac{1}{2}$ quart of the yellow paint to make green paint.

- How many quarts of yellow paint remain in the container after the student makes the green paint?

Answer: _____ quarts of yellow paint remain

41. The height of a television screen is $1\frac{1}{3}$ feet. The width of the television screen is $2\frac{3}{8}$ feet.

What is the area, in square feet, of the television screen?

Answer: _____ feet²

42. Cement was poured to make two rectangular prisms. The prisms were stacked, as shown.

What is the total amount of cement, in cubic feet, used to make the two rectangular prisms?

Answer: _____ cubic feet

