

St. Patrick School Summer Math Packet

Incoming 6th Graders

You have heard it said that “math is not a spectator sport.” This means that the way a person becomes good at math is by “doing math”. Since it is important to exercise your mathematical thinking so that you remain in “good mathematical shape”, I have designed the problems in this packet to help you review topics we have learned from this past school year.

Please put the pages in order and staple before turning in the packet. All problems must be **worked out clearly**.

Remember to read each question carefully! Also remember all the shortcuts that we have learned and practiced!

Have a safe and blessed summer vacation!!

Love always,

Ms. Alvero

PearsonRealize Summer Math Packet-
Incoming 6th Graders

1. The area of Mammoth Cave National Park in Kentucky is about fifty-two thousand, eight hundred thirty and nineteen hundredths acres. Which shows this number of acres in standard form?

- (A) 52,800.319
- (B) 52,803.19
- (C) 52,830.19
- (D) 52,831.9

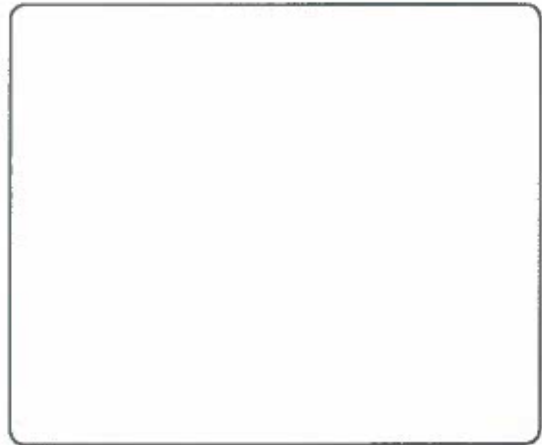
2. Choose all the expressions that are equal to 5×10^4 .

- 5×100
- $5 \times 1,000$
- $5 \times 10,000$
- $5 \times 10 \times 10 \times 10$
- $5 \times 10 \times 10 \times 10 \times 10$

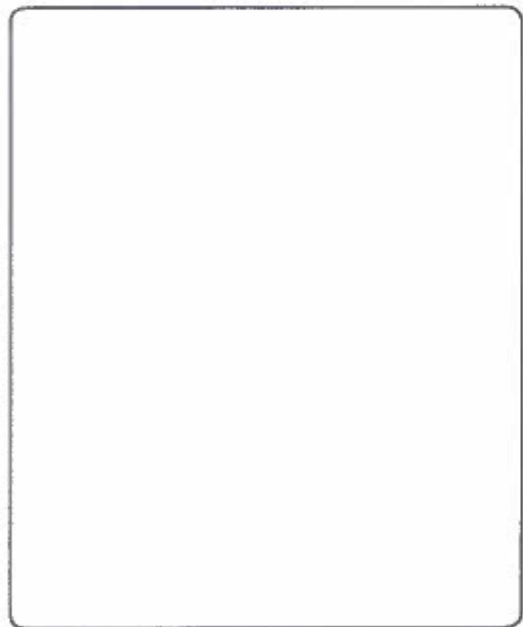
3. Choose all the comparisons that are true.

- $3.062 > 3.26$
- $2.36 > 2.306$
- $6.23 < 6.203$
- $6.203 < 6.32$
- $3.62 < 3.206$

4. Eddy's plum weighs 3.042 ounces. Desta's plum weighs 3.24 ounces. Whose plum weighs more? How can you tell?



5. Kent completed his homework in 52.752 minutes. What is this number rounded to the nearest tenth? Explain how you decided.



6. During the hockey season, Elena averaged 5.625 assists per game. What is 5.625 written in expanded form? How is it written with number names?

7. The numbers below follow a pattern.
300 30 3 0.3 _____

Part A

What are the next two numbers in the pattern?

Part B

What is the relationship between the terms in the pattern?

8. 3.43 0.343

9. Write in word and standard form

$$200 + 60 + 6 + 0.4 + 0.04$$

10. Two rock samples have masses of 56.24 grams and 8.98 grams. Which of the following is the best estimate of the total mass of the rock samples?

- A 56 grams
- B 63 grams
- C 65 grams
- D 70 grams

11. Use mental math to find the sum of \$4.28, \$21.35, and \$14.65.

- A \$39.00
- B \$39.28
- C \$40.00
- D \$40.28

12. Choose all the expressions that are equal to $5.92 + 3.48$.

- $5.9 + 3.5$
- $5.02 + 2.58$
- $3.48 + 5.92$

13. For questions 4a–4d, choose Yes or No to tell if the number 8.37 will make each equation true.

- 4a. $15 - \square = 6.43$ Yes No
- 4b. $5.26 + \square = 13.63$ Yes No
- 4c. $2.15 + \square = 10.42$ Yes No
- 4d. $12.31 - \square = 3.94$ Yes No

14. Draw lines to match each expression on the left to the equivalent decimal on the right.

$8.73 + 3.47$	9.2
$13.5 - 2.8$	12.2
$3.74 + 5.46$	10.7
$14.2 - 5.5$	8.7

15. Sophie put up two bookshelves in her room. The top shelf is 3.88 feet long and the bottom shelf is 4.56 feet long.

Part A

What is the combined length of the two bookshelves?

Part B

How much longer is the bottom shelf than the top shelf?

16. Mr. Lee sold 8.6 pounds of apples and Ms. Perry sold 40.44 pounds of apples at the farmer's market. How many more pounds of apples did Ms. Perry sell than Mr. Lee?

- (A) 31.84 pounds
- (B) 32.24 pounds
- (C) 41.30 pounds
- (D) 49.04 pounds

17. $12.45 + 345 + 0.9 =$

18. A musical is playing at a theater that has 628 seats. Which is the best estimate of the total number of tickets available for 33 shows?

- (A) 500×30
- (B) 600×30
- (C) 600×50
- (D) 700×40

19. A furniture manufacturer shipped 26 cartons to a store. Each carton weighed 235 pounds. What was the total weight of the cartons?

20. The West Rock School District ordered 118 cartons of math books. The books were shipped in cartons that each held 36 books.

Part A

Estimate the total number of math books in the shipment. Write an equation to model your work.

Part B

Did you calculate an overestimate or an underestimate? Explain how you know.

21. Choose all the expressions that are equal to 79,000.

- 79×10^2
 79×10^3
 79×10^4
 100×79
 $1,000 \times 79$

22. Memory cards for a popular brand of digital camera sell for \$16 each. The table shows the sales of these memory cards by an electronics store.

Day	Memory Cards Sold
Saturday	132
Sunday	105
Monday	62
Tuesday	51

Part A

What was the dollar amount of sales of the memory cards on Saturday? Write an equation to model your work.

Part B

What was the dollar amount of sales of the memory cards on Sunday? Write an equation to model your work.

23. Trevor has 228 e-books on his e-reader. Eli has 14 times as many e-books as Trevor. How many e-books does Eli have?

24. Nicole buys envelopes for her home office that come in boxes of 125 envelopes. If she buys 18 boxes, how many envelopes will she have in all?

25. Draw lines to match each number on the left to its equivalent expression on the right.

430	43×10^0
43,000	43×10^2
4,300	$43 \times 1,000$
43	43×10^1

26. For questions 11a–11d, choose Yes or No to tell if the number 10^3 will make each equation true.

11a. $7 \times \square = 7,000$ Yes No

11b. $24 \times \square = 2,400$ Yes No

11c. $80 \times \square = 80,000$ Yes No

11d. $465 \times \square = 46,500$ Yes No

27. Some large envelopes are 0.085 cm thick. How thick is a stack of 100 envelopes packed on top of each other?

- (A) 0.85 cm (C) 85 cm
 (B) 8.5 cm (D) 850 cm

28. One inch equals 2.54 centimeters. How many centimeters is 10 inches?

29. Every school day, Dylan rides the school bus 4.79 miles round trip between home and school.

Part A

Estimate the total distance Dylan rode the school bus last month, when there were 21 school days. Write an equation to model your work.

Part B

Find the actual total distance Dylan rode the bus last month.

30. Match each expression on the left with its product on the right.

6×0.5	30
0.6×0.5	0.3
60×0.5	0.03
0.06×0.5	3

31. Choose all the expressions that are equal to 0.48×0.3 .

- $\frac{48}{100} \times \frac{3}{100}$
 $\frac{3}{10} \times \frac{48}{100}$
 $\frac{48}{100} \times \frac{30}{100}$
 $\frac{3}{100} \times \frac{48}{100}$
 $\frac{48}{100} \times \frac{3}{10}$

32. For questions 7a–7d, choose Yes or No to tell if the number 10^3 will make each equation true.

7a. $0.79 \times \square = 790$ Yes No

7b. $6.3 \times \square = 630$ Yes No

7c. $0.023 \times \square = 23$ Yes No

7d. $14.5 \times \square = 1,450$ Yes No

33. Jonathan is shopping for a frame for a square painting. Each side measures 9.5 inches.



Part A

What is the perimeter of the painting? Write an equation to model your work.

Part B

What is the area of the painting? Write an equation to model your work.

34. A bowling alley charges \$185 per hour for parties. How much would a 2.5-hour party cost?

35. Kaitlyn is planning a trip to Canada. Her cell phone plan includes a roaming charge of \$0.48 per minute for calls made from Canada.

Part A

On her first day in Canada, Kaitlyn calls her parents in Missouri and talks for 10 minutes. What is the cost of this call?

Part B

During her trip, Kaitlyn's calls to the United States total 100 minutes. What will be the total cost for these calls?

36. For questions 12a–12d, choose Yes or No to tell if the decimal 0.29 will make each equation true.

12a. $10^3 \times \square = 29$ Yes No

12b. $10^0 \times \square = 0.29$ Yes No

12c. $10^2 \times \square = 290$ Yes No

12d. $10^4 \times \square = 2,900$ Yes No

37. Every day, Isabella practices the piano for 0.75 hour and the flute for 1.4 hours. What is the total number of hours that she practiced in April? Reminder: April has 30 days.

38. A small business plans to order carpet for 4 identical offices. The floor of each office is 7.2 feet long and 5.8 feet wide.

Part A

Round the length and width to the nearest whole number. Then estimate the total amount of carpet that is needed. Write equations to model your work.

Part B

Find the exact total area. Write equations to model your work.

Part C

Compare your estimate to the exact answer. Why is your answer reasonable?

39. Without doing the multiplication, draw lines to match each expression on the left with the correct product on the right. Use number sense to help you.

6.32×0.15	26.52
7.45×2.88	0.948
8.16×3.25	21.456
9.28×4.15	38.512

40. Nina hiked 4.35 kilometers. Her sister Angela hiked 3 times as far as Nina. How far did Angela hike? Use the bar diagram to help you.



41. For questions 1a–1d, choose Yes or No to tell if the number 50 will make each equation true.
- 1a. $2,000 \div \square = 40$ Yes No
- 1b. $350 \div \square = 70$ Yes No
- 1c. $1,000 \div \square = 200$ Yes No
- 1d. $45,000 \div \square = 900$ Yes No

42. A factory makes 718 toy trains in one day. The toy trains are placed in boxes of 30.

Part A

In what place will the first digit of the quotient be?

Part B

How many boxes will be filled?

Part C

How many toy trains will be left over?

43. A bakery will make 5,400 graham crackers. The graham crackers are packaged in boxes of 60. How many boxes of graham crackers will the bakery have?

44. A candidate for mayor is calling 882 registered voters to remind them about the upcoming election. If the candidate has 49 volunteers and each person calls the same number of voters, how many voters will each volunteer call?

- A 20 voters
- B 19 voters
- C 18 voters
- D 17 voters

45. A middle school needs buses to transport 579 students. If each bus carries 48 students, what is the fewest number of buses needed?

- A 12 buses
- B 13 buses
- C 14 buses
- D 15 buses

46. James bought 10 pencils from the school store, and paid a total of \$1.30. How much did each pencil cost?

- A \$0.013
- B \$0.13
- C \$1.30
- D \$13.00

47. Over the course of 6 days, Tonda ran 17.22 miles. She ran the same distance each day. How far did Tonda run **each day**?

48. For questions 4a-4d, choose Yes or No to tell if the number 10^2 will make each equation true.

4a. $7.2 \div \square = 0.072$ Yes No

4b. $720 \div \square = 72$ Yes No

4c. $72 \div \square = 0.72$ Yes No

4d. $0.72 \div \square = 72$ Yes No

49. A panel in one of the hallways of Emilio's school is rectangular with an **area** of 44.52 square feet. If the panel is 21 feet **long**, how **wide** is it?

(A) 0.212 feet (C) 2.12 feet

(B) 1.12 feet (D) 21.2 feet

50. Choose all the expressions that are equal to $2.73 \div 10$.

$27.3 \div 10^2$

$0.273 \div 1$

$273 \div 10^2$

$27.3 \div 10$

$273 \div 1,000$

52. If 8 pounds of peanuts cost \$12, how much does **1 pound** of peanuts cost?

(A) \$0.15

(B) \$1.25

(C) \$1.50

(D) \$1.75

53. Draw lines to match each expression on the left with the correct quotient on the right.

$60.3 \div 10^2$

0.603

$0.63 \div 10$

0.0063

$6,030 \div 10^3$

0.063

$63 \div 10^4$

6.03

54. One serving of Luna's tomato soup is 0.75 cup. How many servings are in a 72-cup pot? Evaluate the expression $72 \div 0.75$ to help you.

(A) 104.2 servings

(B) 96 servings

(C) 10.42 servings

(D) 9.6 servings

55. A board is 10.17 feet long. Sandy needs to cut the board into 3 equal sections. How long will each section be? Write an equation to model your work.

56. Choose all of the expressions that are equal to $62.1 \div 10^3$.

$621 \div 10$

$6.21 \div 10^2$

$62.1 \div 10^4$

$0.621 \div 10^1$

$621 \div 10^4$

57. Jiangsu divided 751.6 by 10^2 and got a quotient of 0.7516. Yessenia thinks that the quotient should be 7.516. Who is correct? Explain your answer.

58. Draw a line to match the volume of a rectangular prism on the left with its possible dimensions on the right.

28 ft³

120 ft³

144 ft³

60 ft³

6 ft, 2 ft, 5 ft

4 ft, 7 ft, 1 ft

3 ft, 5 ft, 8 ft

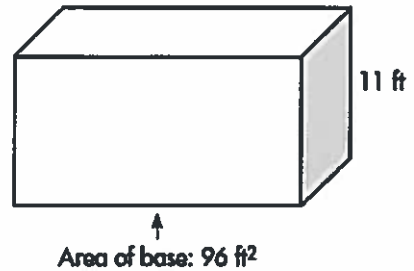
4 ft, 4 ft, 9 ft

59. A storage shed is 9 feet wide, 15 feet long, and 11 feet tall. What is the volume of the shed?

- (A) 35 cubic feet
- (B) 743 cubic feet
- (C) 1,485 cubic feet
- (D) 1,500 cubic feet

60. One cereal box has a volume of 462 cubic inches. Another cereal box measures 12 inches tall, 8 inches long, and 3 inches wide. What is the combined volume of the two cereal boxes?

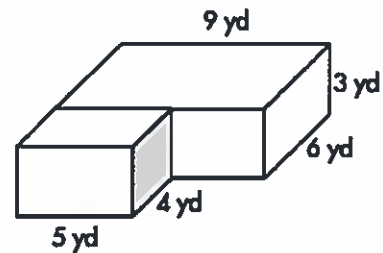
61. What is the volume of the room shown?



62. The living room in a new house has the dimensions shown.

Part A

Write an expression for the total volume of the room.



Part B

What is the volume of the room?

63. What is the HEIGHT of a rectangular prism that has a volume of 56,700 cm³, length of 45 cm, and width of 20 cm? Remember $V = l \times w \times h$

(Plug in the values that are given to find the missing value)

64. For questions 1a–1d, choose Yes or No to tell if the number $\frac{1}{3}$ will make each equation true.

1a. $\frac{1}{6} + \square = \frac{3}{6}$ Yes No

1b. $\frac{5}{8} - \square = \frac{4}{5}$ Yes No

1c. $\frac{9}{10} + \square = \frac{10}{13}$ Yes No

1d. $\frac{3}{7} - \square = \frac{2}{21}$ Yes No

65. Choose all of the expressions that are equal to $\frac{3}{4}$.

$\frac{7}{20} + \frac{2}{5}$

$\frac{19}{20} - \frac{1}{5}$

$\frac{5}{17} - \frac{2}{13}$

$2 + 1\frac{1}{4}$

$3\frac{4}{7} - \frac{9}{10}$

66. Draw lines to match each expression on the left to its sum on the right.

$\frac{1}{8} + \frac{3}{4}$

$\frac{7}{8}$

$\frac{1}{8} + \frac{5}{6}$

$1\frac{1}{40}$

$\frac{1}{8} + \frac{5}{12}$

$\frac{23}{24}$

$\frac{1}{8} + \frac{9}{10}$

$\frac{13}{24}$

67. Write the number in the box that makes the statement true.

$9\frac{8}{5} = 10\frac{\square}{5}$

68. Valentino needs $4\frac{1}{2}$ pounds of chicken for a recipe. He already has $2\frac{3}{4}$ pounds of chicken. How many more pounds of chicken does Valentino need?

(A) $\frac{3}{4}$ pound

(B) $1\frac{1}{2}$ pounds

(C) $1\frac{3}{4}$ pounds

(D) $2\frac{3}{4}$ pounds

69. An adult toy poodle weighs $7\frac{4}{5}$ pounds. An adult dachshund weighs $9\frac{3}{4}$ pounds. How much more does the dachshund weigh than the toy poodle?

70. Subtract the sum of $10\frac{1}{6}$ and $8\frac{3}{8}$ from $22\frac{1}{2}$.

71. What is the area of a rectangular shaped holding pond with length $\frac{8}{15}$ mile and width $\frac{1}{6}$ mile?

(A) $\frac{4}{45}$ sq mi

(B) $\frac{5}{16}$ sq mi

(C) $\frac{3}{7}$ sq mi

(D) $\frac{7}{9}$ sq mi

72. Draw lines to match each expression on the left with the correct product on the right.

$\frac{3}{4} \times \frac{7}{2}$	$\frac{56}{42}$
$\frac{4}{5} \times \frac{3}{7}$	$\frac{21}{8}$
$\frac{8}{7} \times \frac{7}{6}$	$\frac{12}{35}$
$\frac{8}{5} \times \frac{3}{2}$	$\frac{24}{10}$

73. For questions 4a–4d, choose Yes or No to tell if the number $\frac{5}{8}$ will make each equation true.

- 4a. $14 \times \square = 10$ Yes No
 4b. $10 \times \square = 6\frac{1}{4}$ Yes No
 4c. $16 \times \square = 10$ Yes No
 4d. $20 \times \square = 13\frac{1}{2}$ Yes No

74. Francesca had 32 cups of flour. She used $\frac{3}{8}$ of the flour for a recipe. How much flour did Francesca use? Write an equation to model your work.

(Hint: $\frac{3}{8}$ of flour. What does the word of another word for?)

75. Katsuro ran $3\frac{1}{6}$ miles each day for 7 days. How far did he run in all?

- (A) $10\frac{1}{6}$ miles
 (B) $10\frac{1}{2}$ miles
 (C) $22\frac{1}{6}$ miles
 (D) $44\frac{1}{3}$ miles

76. For questions 9a–9d, choose Yes or No to tell if the number $\frac{4}{5}$ will make each equation true.

- 9a. $\square \times \frac{1}{3} = \frac{5}{8}$ Yes No
 9b. $\square \times \frac{3}{7} = \frac{12}{35}$ Yes No
 9c. $\square \times \frac{7}{8} = \frac{7}{10}$ Yes No
 9d. $\square \times \frac{1}{4} = \frac{4}{9}$ Yes No

77. Draw lines to match each expression on the left with the correct product on the right.

$\frac{4}{7} \times 3$	$\frac{27}{4}$
$\frac{3}{4} \times 7$	$\frac{21}{4}$
$\frac{4}{3} \times 7$	$\frac{12}{7}$
$\frac{9}{4} \times 3$	$\frac{28}{3}$

78. For questions 2a–2d, choose Yes or No to tell if the number 7 will make each equation true.

- 2a. $4 \div \square = \frac{4}{7}$ Yes No
 2b. $\square \div 14 = \frac{1}{2}$ Yes No
 2c. $1 \div 7 = \square$ Yes No
 2d. $3 \div \square = \frac{7}{3}$ Yes No

79. Diana has 9 pounds of potting soil. She is putting $\frac{1}{4}$ pound of soil in each flowerpot. How many flowerpots can Diana prepare with soil?

80. How many $\frac{1}{8}$ s are in 31?

81. Draw lines to connect each expression on the left to its quotient on the right.

$18 \div 7$	$\frac{7}{18}$
$18 \div \frac{1}{7}$	$\frac{1}{126}$
$7 \div 18$	$2\frac{4}{7}$
$\frac{1}{7} \div 18$	126

82. The area of a closet floor is 12 square feet. Mario will be placing $\frac{1}{3}$ -square-foot carpet tiles on the entire floor. How many carpet tiles will Mario use?

83. Cho has $\frac{1}{5}$ liter of water. He pours equal amounts of water into 3 cups. Write an expression for the number of liters of water in each cup.

84. A nickel has a mass of 5 grams. What is the mass of a nickel in milligrams?

- (A) 50,000 mg
- (B) 5,000 mg
- (C) 500 mg
- (D) 50 mg

85. Fred has a jug that contains 750 milliliters of milk. How many liters of milk are in the jug?

86. During a football game, the ball is placed 20 yards 2 feet from the goal line. How many feet from the goal line is the football?

87. A race is 6.75 kilometers long. What is the distance of this race in meters?

88. Draw lines to match each measurement on the left to its equivalent measurement on the right.

10 cups	$1\frac{1}{4}$ cups
10 pints	5 pints
10 fl oz	$2\frac{1}{2}$ gallons
10 quarts	5 quarts

89. Choose all of the expressions that are equal to 6×72 .

- $(6 \times 2) + (6 \times 70)$
- $3 + 3 \times 72$
- $6 \times 70 + 2$
- $6 \times (7 + 2)$
- $6 \times (60 + 12)$

Mixed Operations Review- Decimals

1) $74 - 36.2 =$ _____

2) $8.176 \div 0.56 =$ _____

3) $51.079 - 15.564 =$ _____

4) $14.402 + 6.4 =$ _____

5) $58.41 + 6.895 =$ _____

6) $97.5 - 81.25 =$ _____

7) $6.209 \times 4.4 =$ _____

8) $4.46 \times 3.6 =$ _____

9) $34.9 + 59.089 =$ _____

10) $2.9 \times 3.23 =$ _____

11) $4,914 \div 0.13 =$ _____

12) $93.6 \div 3.6 =$ _____

Mixed Problems with Fractions

(Remember to change improper fractions to mixed numbers!)

$$1) \quad \frac{1}{2} + \frac{5}{7} =$$

$$2) \quad \frac{2}{6} + \frac{1}{7} =$$

$$3) \quad \frac{5}{8} + \frac{6}{7} =$$

$$4) \quad \frac{6}{8} - \frac{3}{4} =$$

$$5) \quad \frac{1}{2} - \frac{2}{5} =$$

$$6) \quad \frac{3}{6} - \frac{1}{7} =$$

$$7) \quad \frac{2}{4} \times \frac{1}{6} =$$

$$8) \quad \frac{2}{7} \times \frac{9}{10} =$$

$$9) \quad \frac{1}{3} \times \frac{1}{2} =$$

$$10) \quad \frac{1}{6} \div \frac{6}{7} =$$

$$11) \quad \frac{4}{6} \div \frac{8}{9} =$$

$$12) \quad \frac{1}{7} \div \frac{1}{6} =$$