MATHLETE MARATHON

GOING INTO 5TH GRADE

Each shaded rectangle represents a 30 minute session. Each section of the rectangle equals 10 minutes. Color the sections to keep track of your progress.

CAN YOU REACH THE FINISH LINE?

START

1 2 3 4 5 6 7 8 9 10

20 19 18 17 16 15 14 13 12 11

21 22 23 24 25 26

FINISH

PARENT: _____ STUDENT: _____ CLASSROOM: _____

DEAR MATHLETES:

A marathon is a long-distance race that is 26.2 miles long. An athlete must practice daily in order to keep in shape and reach the finish line!

We would like you to compete in a MATH MARATHON this summer by completing 26+ sessions of math review in order to keep in shape for next year! Review ANYTHING that relates to math – basic facts, computations, problem solving... if it's MATH it counts☺

Use the marathon recording form to keep track of your time. You can complete the 26+ sessions any days you wish, and you may split up the sessions into shorter time periods. (We suggest that you spread your training evenly throughout the summer, each session lasting about 10 minutes.) Be sure to return the form to your *homeroom teacher* in September!

Ideas for workout sessions:

- **Summer Math Packet *(available on ER's website)***
- **Flash cards**
- **Games: dice/cards/dominos/sidewalk chalk**
- **"XtraMath"**
- **iPod/iPad apps**
- **any summer workbook practice pages**
- **Exact Path**
- **Study Island**
- **Connected/EM4 Online Games**
- **Create your own worksheet**

Grade level goals: (Basic Facts)

K into 1st :
- **Addition facts within 10 (up to 5 + 5)**

1st to 2nd:
- **Addition and Subtraction facts within 20 (up to 10 + 10)**

2nd into 3rd:
- **Addition and Subtraction facts within 20**
- **Multiplication facts (x0, x1, x2, x5, and x10)**

3rd into 4th:
- **Mixed Facts: +/- within 20 and x/÷ within 100 (Up to 10 + 10 and 10 X 10)**

4th into 5th:
- **Mixed Facts: +/- within 20 and x/÷ within 100**

GOOD LUCK MATHLETES!

Name:_____ Class:_____ Date:_____

4th to 5th Grade Summer Practice

1. Add mentally.

6 + 8 = _____	7 + 4 = _____	9 + 4 = _____
3 + 8 = _____	8 + 7 = _____	5 + 7 = _____
6 + 6 = _____	9 + 2 = _____	8 + 8 = _____
5 + 9 = _____	7 + 9 = _____	4 + 8 = _____

40 + 50 = _____	40 + 60 = _____	70 + 40 = _____
60 + 60 = _____	90 + 90 = _____	80 + 70 = _____
70 + 60 = _____	90 + 20 = _____	90 + 30 = _____
80 + 60 = _____	70 + 90 = _____	50 + 70 = _____

2. Subtract mentally.

12 – 8 = _____	13 – 5 = _____	15 – 6 = _____
17 – 9 = _____	11 – 3 = _____	15 – 9 = _____
14 – 8 = _____	18 – 9 = _____	16 – 9 = _____
13 – 7 = _____	17 – 8 = _____	13 – 4 = _____

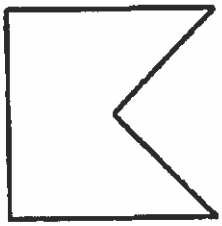
180 – 90 = _____	130 – 50 = _____	170 – 90 = _____
150 – 80 = _____	140 – 50 = _____	140 – 70 = _____
120 – 80 = _____	120 – 70 = _____	110 – 20 = _____
140 – 60 = _____	120 – 90 = _____	110 – 80 = _____

Name:_____ Class:_____ Date:_____

4th to 5th Grade Summer Practice

3. Identify the shapes that are NOT polygons.

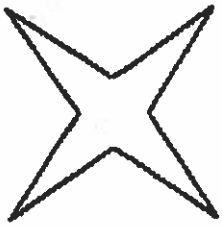
a.



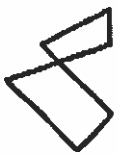
b.

c.

d.



e.

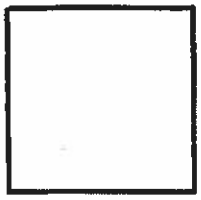


Name:_____ Class:_____ Date:_____

4th to 5th Grade Summer Practice

4. There may be more than one correct name for the geometric figure.

Fill in the circle next to each correct name.

a. 

- ○ quadrangle
- ○ square
- ○ polygon
- ○ parallelogram

b. 

- ○ polygon
- ○ square
- ○ rhombus
- ○ rectangle

5. In the numeral 34,679 what does the 3 stand for? _____

a. 30,000 b. 300 c. 30 d. 3,000

6. The value of the digit 9 in 623,895 is _____.

7. Write ninety million, sixty thousand, seven using digits.

a. 90,060,070 b. 9,060,007 c. 90,600,007 d. 90,060,007

8. Write 9,041,238 in words.

a. nine million, forty-one thousand, two hundred thirty-eight
b. nine thousand, forty-one million, two hundred thirty-eight
c. nine million, four thousand, two hundred thirty-eight
d. nine million, forty-one thousand, eight hundred thirty-two

9. Write >, <, or = to make the number sentence true.

2,700,000 _____ 27,000,000

10. Add mentally or with a paper-and-pencil algorithm.

$$\begin{array}{r} 1,827 \\ +\ 504 \\ \hline \end{array}$$

Name:_____ Class:_____ Date:_____

4th to 5th Grade Summer Practice

11. Subtract mentally or with a paper-and-pencil algorithm.

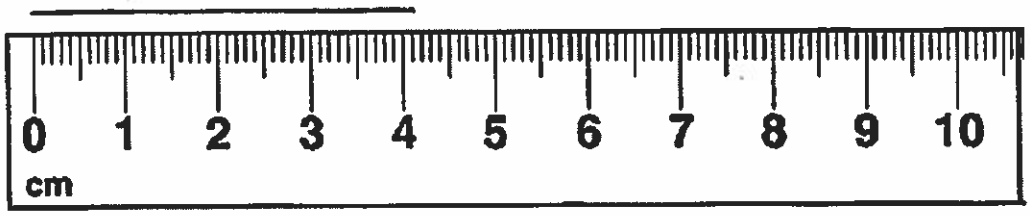
$$\begin{array}{r} 461 \\ -\ 187 \\ \hline \end{array}$$

12. Make a ballpark estimate. Write a number model to show your strategy.

8,692 – 2,769

_____ – _____ = _____

13. Mohammad asked Rachelle to measure the line segment to the nearest $\frac{1}{2}$ centimeter. Which measure is the best? _____



a. $4\frac{1}{2}$ cm b. 3 cm c. 4 cm d. $3\frac{1}{2}$ cm

Name:_____ Class:_____ Date:_____

4th to 5th Grade Summer Practice

14. a. Draw a polygon with at least two right angles. Mark the right angles with a square corner symbol.

b. Is the polygon you drew a parallelogram? _____

c. Explain.

_____

_____

_____

_____

_____

15. List all the factors of 30.

_____

16. Which of the following are NOT factor pairs of 54?

a. 6×9
b. 6×3
c. 2×27
d. 18×6
e. 18×3
f. 1×54
g. 3×9
h. 9×6

Name:_____ Class:_____ Date:_____

4th to 5th Grade Summer Practice

17. Which numbers are multiples of 4?

a. 23
b. 57
c. 16
d. 28
e. 24
f. 35

18. Is 74 a prime or composite number? _____

19. Complete the "What's My Rule?" table and state the rule.

Rule: _____

in	out
3	21
5	35
9	
	56
7	
	42

20. Fill in the missing numbers and state the rule.

5, _____, _____, 14, _____, 20

Rule: _____

Name:_____ Class:_____ Date:_____

4th to 5th Grade Summer Practice

21. Write >, <, or = to make each number sentence true.

    a. 15+15 _____ 30

    b. 150−30 _____ 110

    c. 40+40 _____ 60+20

22. Make a true sentence by filling in the missing number.

    (15 − 6) * 8 = _____

23. Divide mentally.

    270 / 3 = _____

24. Make a true sentence by filling in the missing number.

    (17 − 8) + 21 / 7 = _____

25. Tickets to the school play cost $4 for students and $8 for adults. Carlos needs to buy 7 student tickets and 5 adult tickets for his family. How much money does he need? Write a number model. Use *m* to represent the money Carlos needs.

    Number model: _____

    How much money does Carlos need? $_____

26. Write a number model and solve the number story.

    The Williams family and the Liguzinski family have farms bordering the same pond. The Williams family constructed Williams Pond Road between their farmhouse and the pond in 1968. The road had a length of 4,700 feet. The Liguzinski family constructed Liguzinski Pond Road from their farmhouse to the pond in 1973. Liguzinski Pond Road had a length of 3,970 feet. How much longer is Williams Pond Road than Liguzinski Pond Road?

    Number model: _____

    Answer: _____ ft

Name:_____ Class:_____ Date:_____

4th to 5th Grade Summer Practice

27. Write an equivalent fraction, decimal, or whole number.

Decimal	Fraction
	$\frac{37}{100}$
0.8	
0.5	
	$\frac{0}{9}$

28. Write >, <, or = to make the number sentence true.

0.97 _____ 0.98

29. Put these numbers in order from smallest to largest.

7.96, 0.97, 0.96, 6.97, 9.67

_____ (smallest)

_____

_____

_____

_____ (largest)

Name:_____ Class:_____ Date:_____

4th to 5th Grade Summer Practice

30. Mrs. Carmona had $97.16 in her savings account. She deposited $32.50. A week later, she deposited $36.25. What is the new balance in her savings account?

    $_____

    Write what you did to find the answer.

    _____

    _____

    _____

    _____

31. Write eight million, seventy thousand, three using digits.

    _____

    a. 8,070,030 b. 8,070,003 c. 80,070,003 d. 8,007,003

Name:_____ Class:_____ Date:_____

4th to 5th Grade Summer Practice

32. Write 1,007,263 in words.

_____

_____

_____

_____

_____

a. one million, seven thousand, three hundred sixty-two
b. one thousand, seven million, two hundred sixty-three
c. one million, seven thousand, two hundred sixty-three
d. one million, seventy thousand, two hundred sixty-three

33. Round to the nearest hundred thousand.

431,946 _____

34. Round to the nearest ten.

657,175 _____

35. Multiply. Use a paper-and-pencil algorithm.

_____ = 359 * 7

Name:_____ Class:_____ Date:_____

36. Complete the "What's My Rule?" table and state the rule.

Rule: _____

in	out
5	450
30	
80	7,200
	3,600
900	

37. Dinner at a famous restaurant costs $42. Dinner at the local diner costs $7. How many times as much does it cost to eat at the famous retaurant as it does to eat at the local diner?

_____ times as much

38. Circle the number closest to the sum. Write a number model for the estimate.

312 + 956 + 618 1,100 1,500 1,900 2,300

Number model: _____

39. Make a ballpark estimate. Write a number model to show your strategy.

8,692 – 2,769

_____ – _____ = _____

40. There are 67 crackers in a box. Deon and his six brothers decide to share them equally. How many whole crackers will each boy get?

Number model: _____

Answer: _____ crackers

Name:_____ Class:_____ Date:_____

4th to 5th Grade Summer Practice

41. Tyree baked 66 muffins for a school breakfast. He put the muffins on plates. Each plate holds 8 muffins. How many plates were needed to hold all of the muffins?

    Number model: _____

    Answer: _____ plates

42. Next month a large group of students, teachers, and parents are going on a field trip to a museum. The group includes 163 adults and 656 students. Each bus holds 50 people. How many buses are needed for the trip?

    Write a number model. Use *b* to represent the number of buses needed for the trip.

    Number model: _____

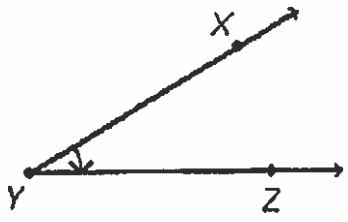
    How many buses are needed? _____

    Explain: _____

    _____

43. Determine whether $\angle XYZ$ is acute, right, or obtuse. _____

    Find the measure of $\angle XYZ$: _____°



Name:_____ Class:_____ Date:_____

4th to 5th Grade Summer Practice

44. $\angle ABC$ is _____ (acute or obtuse).

Measure of $\angle ABC$ = _____°.

45. Divide. Use a paper-and-pencil algorithm.

$7\overline{)519}$ = _____

a. 74 R3 b. 74 c. 74 R1 d. 75

46. For each fraction, write two equivalent fractions.

a. $\frac{1}{5}$ _____ _____

b. $\frac{1}{8}$ _____ _____

c. $\frac{2}{4}$ _____ _____

d. In part c, could the numerator of an equivalent fraction be less than 2? Explain your reasoning.

_____

_____

_____

Name:_____ Class:_____ Date:_____

4th to 5th Grade Summer Practice

47. a. Write >, <, or = to make the number sentence true.

$\frac{5}{12}$ _____ $\frac{3}{4}$

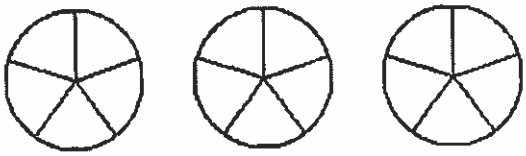
b. Explain how you solved part a.

_____

_____

_____

48. a. Shade the circles to show $\frac{13}{5}$.



Complete to make true number sentences.

b. $\frac{13}{5} = \frac{10}{5} + \frac{\bigcirc}{5}$

c. $\frac{13}{5} = \frac{5}{5} + \frac{\square}{5} + \frac{\bigcirc}{5}$

49. Add.

$2\frac{2}{3} + 4\frac{2}{3} =$ _____

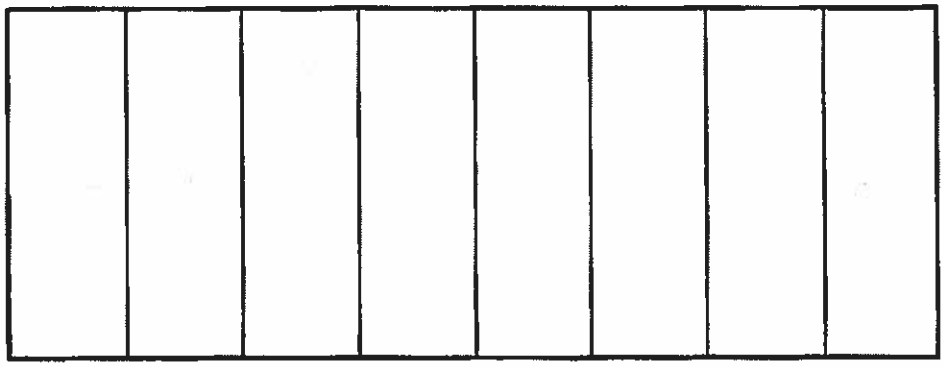
50. Subtract.

$7\frac{4}{5} - 4\frac{3}{5} =$ _____

Name:_____ Class:_____ Date:_____

4th to 5th Grade Summer Practice

51. Matt painted $\frac{1}{8}$ of a wall on Friday. On Saturday, he painted another $\frac{5}{8}$ of the wall. How much of the wall did he paint?



_____ of the wall

52. Patricia bought $\frac{7}{9}$ pound of grapes. Then she ate $\frac{2}{9}$ pound of them. How many pounds of grapes does she have now?

_____ pound of grapes

53. Jamal had 30 quarters. He spent $\frac{1}{5}$ of them on used books.

How many quarters did he spend? _____ quarters

54. Mackenzie has 32 campaign buttons. She gives $\frac{1}{4}$ of them to Travis and $\frac{3}{4}$ to Jack.

a. How many campaign buttons does Travis get? _____ campaign buttons

b. How many campaign buttons does Jack get? _____ campaign buttons

c. How many campaign buttons does Mackenzie keep? _____ campaign buttons

Name:_____ Class:_____ Date:_____

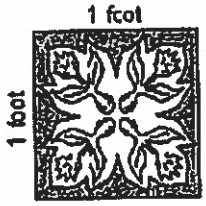
4th to 5th Grade Summer Practice

55. Complete. Measure with a centimeter ruler.

base = _____ cm perimeter = _____ cm

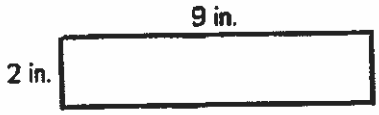
height = _____ cm Area = _____ cm^2

56. Mrs. Gomez wants to tile her kitchen floor. The room is 11 feet wide and 15 feet long. How many 1-square-foot tiles does she need to cover the floor?



_____ tiles

57. Find the area of the rectangle.



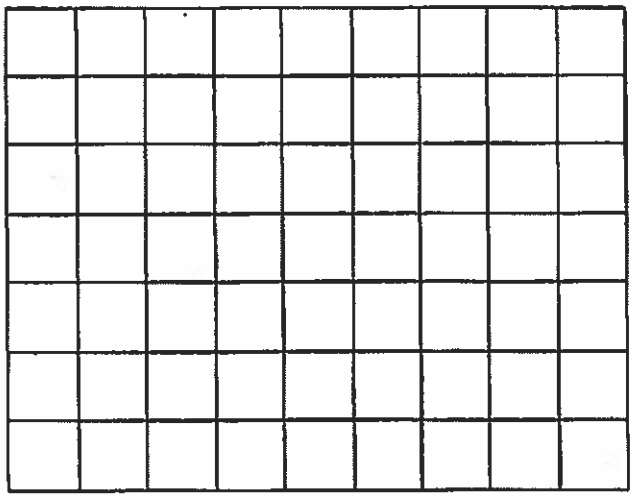
Area = _____

a. 18 in^2 b. 11 in^2 c. 11 in. d. 22 in.

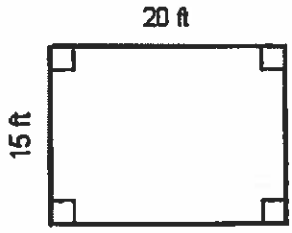
Name:_____ Class:_____ Date:_____

4th to 5th Grade Summer Practice

58. Draw a rectangle with an area of 36 square centimeters.



59. Find the area and perimeter of the polygon. Write number models to show what you did to get the answers. Include the correct units.



Area = _____

Number Model: _____

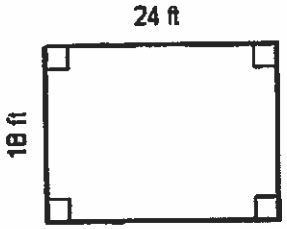
Perimeter = _____

Number Model: _____

Name:_____ Class:_____ Date:_____

4th to 5th Grade Summer Practice

60. Find the area and perimeter of the polygon. Write number models to show what you did to get the answers. Include the correct units.



Area = _____

Number Model: _____

Perimeter = _____

Number Model: _____

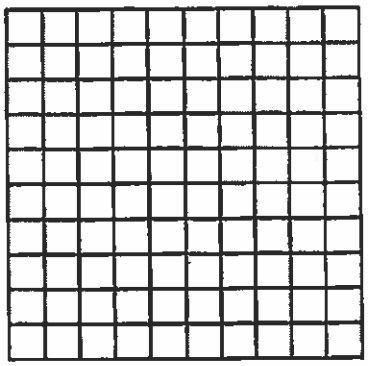
61. Fill in the table of equivalent fractions, decimals, and percents.

Fraction	Decimal	Percent
$\frac{7}{10}$		
$\frac{1}{2}$		
		25%
$\frac{3}{4}$		
	0.4	
$\frac{2}{2}$		

Name:_____ Class:_____ Date:_____

4th to 5th Grade Summer Practice

62. Shade 40% of the grid below.

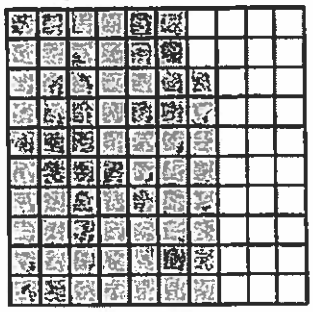


a. What fraction of the grid did you shade? _____

b. Write this fraction as a decimal. _____

c. What percent of the grid is NOT shaded? _____

63. Name the shaded area as a decimal.



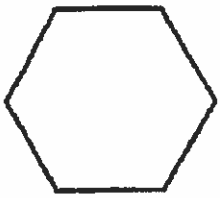
decimal: _____

Name:_____ Class:_____ Date:_____

4th to 5th Grade Summer Practice

64. Which drawings have a line of symmetry?

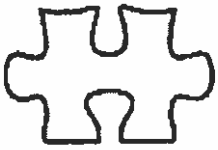
a. 

b. 

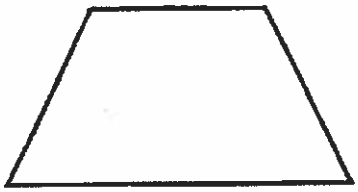
c. 

d. 

e. 

f. 

65. Use a straightedge to draw all lines of symmetry.



The figure has _____ line(s) of symmetry.

66. Something that weighs $\frac{7}{8}$ pound weighs _____ ounces.

Name:_____ Class:_____ Date:_____

4th to 5th Grade Summer Practice

67. Tickets to the school play cost $3 for students and $5 for adults. Ali needs to buy 6 student tickets and 7 adult tickets for his family.

    How much money does he need?

    Write a number model. Use *m* to represent the money Ali needs.

    Number model: _____

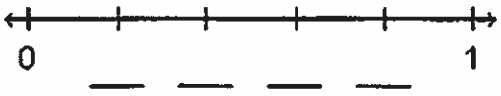
    How much money does Ali need? $_____

68. Jocelyn talked on the phone an average of 38 minutes per week for 1 whole year. About how many minutes did Jocelyn spend on the phone in 1 year?

    _____ minutes

    a. 4,000
    b. 360
    c. 400
    d. 2,000

69. Fill in the missing fractions on the number line.



70. Stephanie read $\frac{1}{2}$ of a 248 page book. Scott read $\frac{1}{2}$ of a 116 page book. Did they read the same number of pages? Explain why or why not.

_____

_____

_____

_____