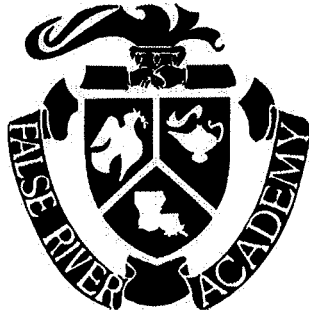


False River Academy
New Roads, LA



7th Grade
Math
Summer Packet



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Dear Parents and Guardians:

Attached are the summer curriculum review materials for 7th grade. We strongly suggest that your child complete this booklet over the course of the summer. Submission of the completed material is neither required nor necessary.

This booklet was prepared by the False River Academy mathematics teachers and contains topics that reflect content which was taught and should have been mastered during the school year. It will provide a great review for your child entering into the next grade as well as provide you a tool to see what areas your child may need extra help with before the start of the coming year.

Thank you for your cooperation.

Sincerely,

FRA Math Teachers

Complete all of the problems in this packet without a calculator. Circle your answers on these pages. Show your work on loose-leaf paper and staple it to the packet.

Number and Number Relations

1. What decimal is equivalent to 0.54?

- A.** 0.0400 **B.** 5.4 **C.** 0.540 **D.** 0.400

2. Which fraction is equivalent to $\frac{6}{9}$?

- A.** $\frac{2}{4}$ **B.** $\frac{2}{3}$ **C.** $\frac{3}{4}$ **D.** $\frac{8}{10}$

3. $7\frac{7}{9}$ $\underline{\hspace{1cm}}$ $8\frac{5}{7}$

- A.** < **B.** > **C.** =

4. Shannon and Travis are photographers who specialize in portraits. Last year, Shannon photographed 14 individuals and 18 families. Travis photographed 15 individuals and 16 families. Who photographed a higher ratio of individuals to families?

- A.** Shannon **B.** Travis **C.** neither; the ratios are equivalent

5. Evaluate: $1 + 8.5 - 0.6$

- A.** 9.1 **B.** 8.9 **C.** 7.3

6. Evaluate $3^2 + -7$

- A.** 1 **B.** -1 **C.** 16 **D.** 2

7. Simplify: $3(4 + 2b)$

- A.** $7 + 5b$ **B.** $12 + 6b$ **C.** $12 + 2b$ **D.** $14b$

8. $\frac{9}{20} \cdot \frac{5}{8}$ (in simplest form)

- A.** $\frac{45}{160}$ **B.** $\frac{9}{32}$ **C.** $\frac{3}{10}$ **D.** $\frac{14}{40}$

9. $2\frac{4}{5} \div (-7)$ (in simplest form)

- A.** $-2\frac{4}{35}$ **B.** $\frac{14}{35}$ **C.** $-19\frac{3}{5}$ **D.** $-\frac{2}{5}$

10. $0.2 \times 0.2 =$

- A.** 0.04 **B.** 0.004 **C.** 0.4 **D.** 4.0

11. What is 65% of 74?

- A.** 48.1 **B.** 63.2 **C.** 87.8 **D.** 113.8

12. Claire bought 8 rolls of paper towels. She got 175.2 meters of paper towels in all. How many meters of paper towels were on each roll?

- A.** 1401.6 meters **B.** 0.046 meters **C.** 2.19 meters **D.** 21.9 meters

13. 69 out of 92 students at a school assembly were 7th grade students. What percentage of the students at the assembly were 7th graders?

- A.** 23% **B.** 7.5% **C.** 69% **D.** 75%

14. Estimate 3.45×6.99 (round each to nearest whole number).

- A.** 24 **B.** 28 **C.** 18 **D.** 21

15. School buses bring 65% of the students attending Hillsdale Middle School to school each day. Write 65% as a decimal.

- A.** 0.65 **B.** 6.5 **C.** 65.0 **D.** 0.065

16. Write the ratio 8:28 as a fraction in simplest form.

- A.** $\frac{8}{28}$ **B.** $\frac{4}{14}$ **C.** $\frac{3}{5}$ **D.** $\frac{2}{7}$

17. Suzanne drives 165 miles in 3 hours. What is her average speed in miles per hour?

- A.** 55 mph **B.** 495 mph **C.** 81 mph **D.** 54 mph

18. In a bag of jelly beans, the ratio of pink jelly beans to yellow jelly beans is 2 to 5. Find the number of yellow jelly beans in a bag that has 8 pink jelly beans.

- A.** 8 yellow **B.** 16 yellow **C.** 4 yellow **D.** 20 yellow

19. 45 is 75% of what number? **A.** 34 **B.** 60 **C.** 16 **D.** 6

Algebra

20. Evaluate $50 - t^2$ if $t = 6$.

- A.** 38 **B.** 14 **C.** -14 **D.** 44

21. What is the square root of 64?

- A.** 8 **B.** 32 **C.** 9 **D.** 128

22. Estimate $\sqrt{30}$.

- A.** between 4 and 5 **B.** between 5 and 6 **C.** between 6 and 7

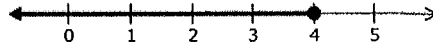
23. The total cost of a package of pens, a package of pencils, and a package of notebook paper is \$5.40. If the pens and pencils cost \$3.15 together, what is the cost of the package of notebook paper?

- A.** \$0.90 **B.** \$8.55 **C.** \$11.70 **D.** \$2.25

24. Write the sentence as an algebraic equation. Six less than a number is 24.

- A.** $6 - x = 24$ **B.** $6x = 24$ **C.** $24 - 6 = x$ **D.** $x - 6 = 24$

25. What inequality does the number line show?



- A.** $x < 4$ **B.** $x \geq 4$ **C.** $x \leq 4$ **D.** $x > 4$

26. Solve: $3x - 2 \leq 7$

- A.** $x \geq 3$ **B.** $x \leq 3$ **C.** $x \leq 15$ **D.** $x \geq 15$

27. Solve: $3x - 6 = 3$

- A.** 5 **B.** 27 **C.** $x = -1$ **D.** $x = 3$

28. Which shows the graph for $h + 9 > 13$?

- A.**
A number line with tick marks from 1 to 7. An open circle is at 4, and a ray points to the right.
- B.**
A number line with tick marks from 1 to 7. An open circle is at 4, and a ray points to the left.
- C.**
A number line with tick marks from 1 to 7. A closed circle is at 4, and a ray points to the right.
- D.**
A number line with tick marks from 1 to 7. A closed circle is at 4, and a ray points to the left.

29. Diane jarred 12 liters of jam after 2 days. Then, she jarred an additional 18 liters of jam after another 3 days of jam-making. How many liters of jam does Diane jar each day?

- A.** 4 jars **B.** 6 jars **C.** 8 jars **D.** 2 jars

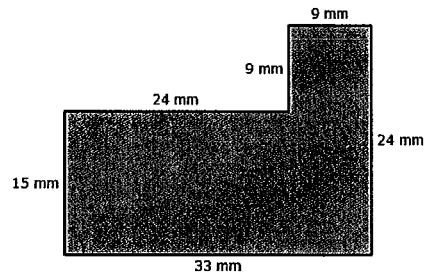
30. What is the missing number to complete the linear equation that gives the rule for this table?

x	y
0	0
1	3
2	6
3	9

$y = \square x$

- A.** 1 **B.** 2 **C.** 3 **D.** 4

Measurement



31. Find the area.

- A.** 114 mm^2 **B.** 792 mm^2 **C.** 144 mm^2 **D.** 576 mm^2

32. Which is a better estimate for the volume of a bathroom sink?

- A.** 1 cup **B.** 1 gallon **C.** 1 pint

33. Which is more, 26 fluid ounces or 1 pint?

- A.** 26 fl. oz. **B.** 1 pint **C.** neither; they are the same

34. What is the temperature inside a refrigerator? Choose the more reasonable answer.

- A.** 38° F **B.** 38° C **C.** 75° F **D.** 75° C

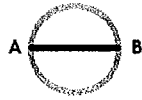
35. Suppose the temperature today in Cleveland, Ohio is 18° F . Use the expression $\frac{5(F - 32)}{9}$, where F represents the number of degrees Fahrenheit, to find the temperature in Cleveland in degrees Celsius.

- A.** -7.78 **B.** 6.44 **C.** 7.78 **D.** -6.44

Geometry

36. A triangle has angle measurements of 33° , 58° , and 89° . What kind of triangle is it?

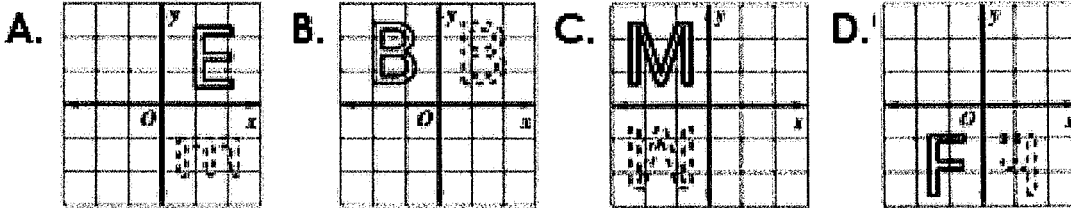
- A.** equilateral **B.** isosceles **C.** scalene



37. What is AB ?

- A. center B. chord C. radius D. diameter

38. Which diagram shows a reflection in the y-axis?



39. The diameter of a circle is 8 miles. What is the circle's radius?

- A. 16 miles B. 25.12 miles C. 12.56 miles D. 4 miles

40. Find the area of a circle with a diameter of 24.6 miles.

- A. $A \approx 475.0$ B. $A \approx 1900.2$ C. $A \approx 77.2$ D. $A \approx 192.7$

41. If a circle has a circumference of 6.28 yards, what is the circle's diameter?

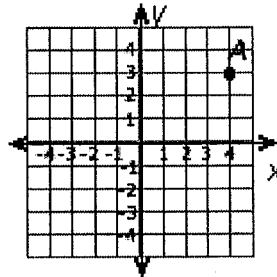
- A. 3.14 yards B. 19.71 yards C. 2 yards D. 12.56 yards

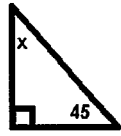
42. In which quadrant is $(-2, -3)$?

- A. Quadrant I B. Quadrant II C. Quadrant III D. Quadrant IV

43. What are the coordinate for Point A?

- A. $(4, 3)$ B. $(3, 4)$ C. $(-4, 3)$ D. $(4, -3)$





44. Find the value of x . **A.** 46° **B.** 60° **C.** 45° **D.** 180°

Data Analysis, Probability, and Discrete Math

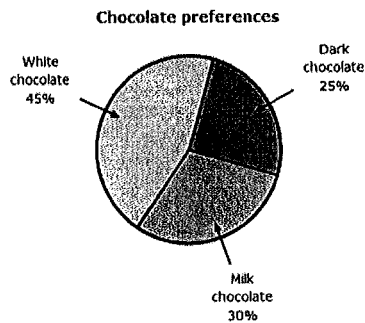
45. Which is the best type of graph to show the number of boys and the number of girls who like soccer, basketball, and tennis?

- A.** pictograph **B.** bar graph **C.** double bar graph **D.** stem-and-leaf plot

46. Which type of chocolate was least popular?

- A.** white chocolate
B. dark chocolate
C. milk chocolate

A survey was conducted to learn people's chocolate preferences.



47. What number is missing in the chart? **A.** 3 **B.** 6 **C.** 5 **D.** 4

A candy dispenser put various numbers of orange candies into bags.

Use the data to complete the frequency chart below.

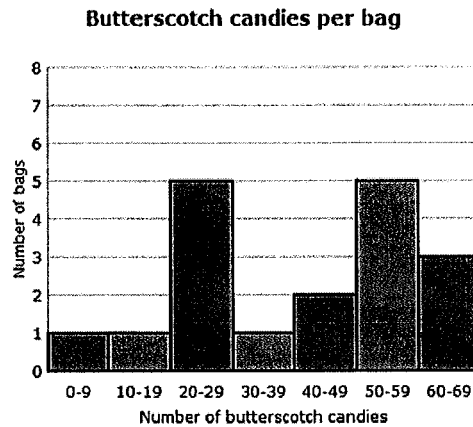
Orange candies per bag

77 106 119 24 89 62 38 126 81 52 64 59 23 39
88 76 87 73 109 131 38 129 119 68 41 119 129
88

Orange candies per bag	
Number of orange candies	Number of bags
21-40	5
41-60	3
61-80	6
81-100	5
101-120	5
121-140	

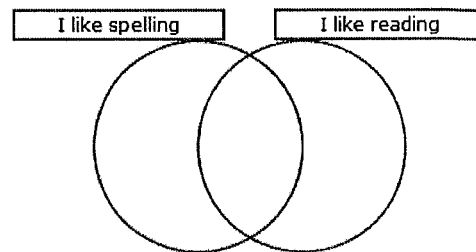
48. Using the histogram below, how many bags of candy are there in all?

- A. 5 B. 19 C. 69 D. 18**



49. 6 of the children in Lauren's class like spelling. 8 children like reading, and 2 children like both spelling and reading. How many children like spelling but not reading?

- A. 2 B. 4 C. 6 D. 8**



50. At the Hot Stuff Pizza Shop, there are three choices for a type of crust, two choice for a type of sauce, and nine choices of different toppings. Find the number of ways a one-topping pizza can be made.

- A. 9 B. 14 C. 27 D. 54**

51. What is the probability of rolling a number greater than four on a number cube marked with 1, 2, 3, 4, 5, and 6 on its faces? Answer must be in simplified form.

- A. $\frac{2}{6}$ B. $\frac{3}{6}$ C. $\frac{1}{3}$ D. $\frac{1}{2}$**

52. A number cube is rolled 80 times and a 3 results fifteen times. What is the experimental probability of rolling a 3? Answer must be in simplified form.

- A. $\frac{3}{80}$ B. $\frac{3}{16}$ C. $5\frac{1}{3}$ D. $\frac{15}{80}$**

Patterns, Relations, and Functions

53. Evaluate the expression 4^3 .

- A.** $4 \cdot 4 \cdot 4 = 64$ **B.** $3 \cdot 3 \cdot 3 \cdot 3 = 81$ **C.** $4 \cdot 3 = 12$

54. Dave was hiking on a trail that took him to an altitude that was 15 miles below sea level. Susan hiked to an altitude that was 8 miles above Dave. What was the final altitude for Susan's hike?

- A.** 7 miles below sea level **B.** 7 miles above sea level
C. 23 miles above sea level **D.** 23 miles below sea level.

55. Strawberry Point, Iowa, has a strawberry sculpture that is 15 feet tall. If the scale of the model is 10 feet to 1 inch, how tall is the original strawberry.

- A.** 150 inches **B.** 0.15 inches **C.** 15 inches **D.** 1.5 inches