

Grade 4 Mathematics CRT

(No Calculators)

1. The refreshment stand at the local park has the following menu:

MENU	
Fish Plate	\$3.99
Hamburger	\$1.15
French Fries	\$0.65
Onion Rings	\$0.80
Milk	\$0.45
Juice	\$0.65

- a. Julia wants a hamburger, french fries and a milk. She has \$2.50. Does she have enough money to buy what she wants? YES OR NO _____

Show your work and explain how you know.

- b. You are running the refreshment stand. Someone purchases two hamburgers, onion rings and two juices. He gives you a \$5 bill. How much change should you give him? What coins could you give him?

Amount of Change

Coins

- c. Suppose you have \$6 to spend at the refreshment stand. Make up an order of at least four items that comes close to the \$6 without going over and tell how much your order will cost.

Your Order:

Total Cost: _____

- d. Betina has \$3.60 of her allowance with her. She buys one order of french fries and one milk. How much of her allowance does she have left? Show your work and place your answer in the space below.
-

2. Carol has 8 coins. Their total value is 78¢. What coins could Carol have? Use the table below to help you solve this problem.

Number of Coins				Total number of coins	Total value
Quarters	Dimes	Nickels	pennies		

3. Draw a rectangular array that shows 4×5 and explain how you can find the product using addition.

4. Arrange the digits 5, 6, 7 and 8 in the boxes to get the smallest possible difference.

—		

5. Write the following products or quotients:

a. $5 \times 6 =$ _____

b. $3 \times 8 =$ _____

c. $35 \div 7 =$ _____

d. $18 \div 3 =$ _____

6. Carol earns \$4 an hour on weekdays and \$6 an hour on Saturdays. Last month she worked 10 weekdays and 3 Saturdays. How much did Carol earn last month? Show your work and circle your final answer.

7. Write a story problem that can be solved using the number sentence:

$$45 - 17 = \boxed{}$$

8. Write a story problem that can be solved using the number sentence:

$$5 \times 7 = \boxed{}$$

9. Write a story problem that can be solved using the number sentence:

$$36 \div 9 = \boxed{}$$

10. Write a **number sentence** that could be used to solve each of the following problems.

a. Tim has \$4.50. Robin has \$7.25. How much do the two students have all together?

b. Charles earns \$4 per hour. How much does he make if he works 14 hours?

c. A class of 25 students wins \$50. If the money is shared equally, how much will each student get?

11. Sam went to the city with \$14.87. When he returned, he had \$6.39. Explain how you could estimate how much money he spent in the city?

12. Emeka's school has 431 students. His sister's school has 286 students. Explain how you could estimate the total number of students in the two schools.

a. _____

- b. Will the strategy you used to estimate the total number of students in the two schools result in an over estimate or an underestimate?

13. Consider the number 12, 357.

a. Write the number that is 10 greater _____

b. Write the number that is 10 less _____

c. Write the number that is 100 greater _____

d. Write the number that is 100 less _____

e. Write the number that is 1000 greater _____

f. Write the number that is 1000 less _____

14. Use only the digits 9 6 8 1 and 3 without repeating any digit to:

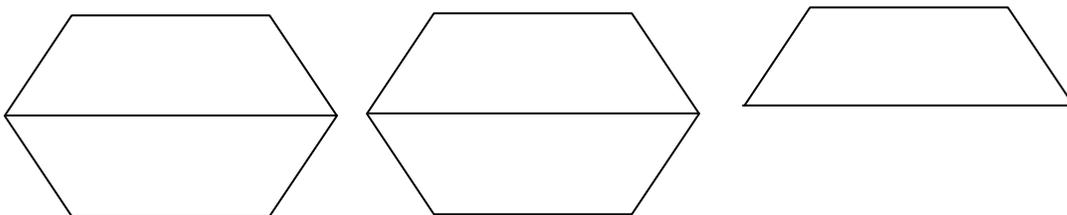
- a. Write a 2-digit number as close as possible to 60. _____
- b. Write a 3-digit number as close as possible to 400. _____
- c. Write a 4-digit number as close as possible to 2,000 _____

15. A window in Donna's house is made up of 6 small panes of glass. While playing baseball, she accidentally broke 2 of the panes.

- a. Draw a picture to show what fraction of the panes were broken.

- b. Write an equivalent fraction that also describes what fraction of the panes were broken.

16. In the space below draw two different pictures that represent $\frac{3}{4}$.



17. Dolores said the blocks pictured above can be described as $\frac{5}{2}$.

- Ricky describes the same blocks using a mixed number. What mixed number could Ricky have used to describe the blocks?
- Tanisha used words to describe the blocks. What did she write?

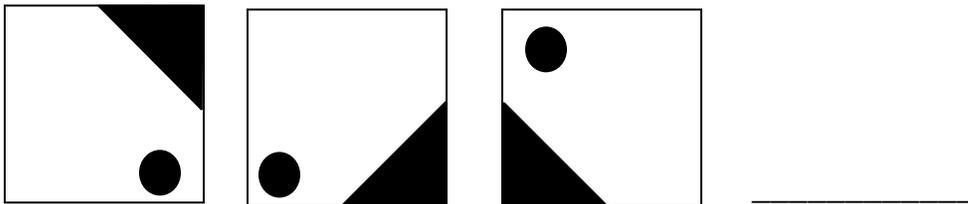
18. Consider the following seven fractions:

$\frac{5}{12}$ $\frac{7}{8}$ $\frac{3}{5}$ $\frac{1}{8}$ $\frac{2}{9}$ $\frac{4}{7}$ $\frac{5}{6}$

Sort the fractions into the correct column in the table below.

Close to 0	Close to $\frac{1}{2}$	Close to 1

19. Draw the next figure in the pattern.



20. Fill in the blanks to complete a pattern. Then describe the pattern you used.

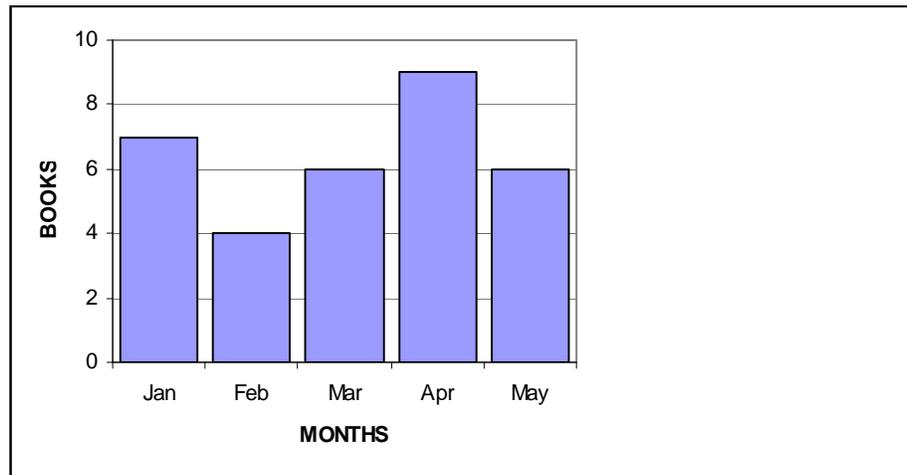
a. 11, 13, 15, _____, _____, 21, _____

pattern: _____

b. 33 ____, ____, ____, 21, 18, 15

pattern: _____

21. The graph below shows how many books Rosa read during 5 months. Use the graph to answer the following questions.



During which month did Rosa read the fewest books? _____

a. How many books did she read during this month? _____

b. Find two months during which she read a total of 13 books.

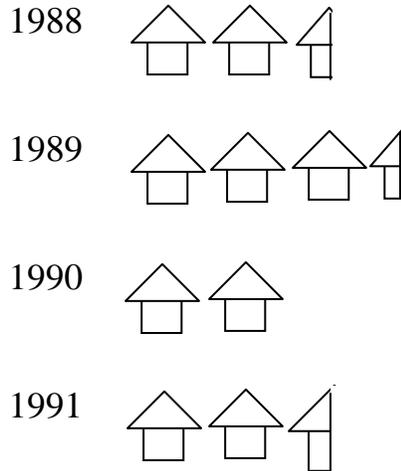
Name the months. _____

d. What is the total number of books Rosa read during these 5 months?

e. Write another question you can answer using the data in the graph.

22. The graph below shows how many new houses were built in Westmont during four years. Use the graph to answer the following questions.

New Houses in Westmont



(Each  = 4 houses)

- About how many houses were built in 1989? _____
- Explain what you had to do to figure out your answer.
- About what was the total number of houses built in the four years

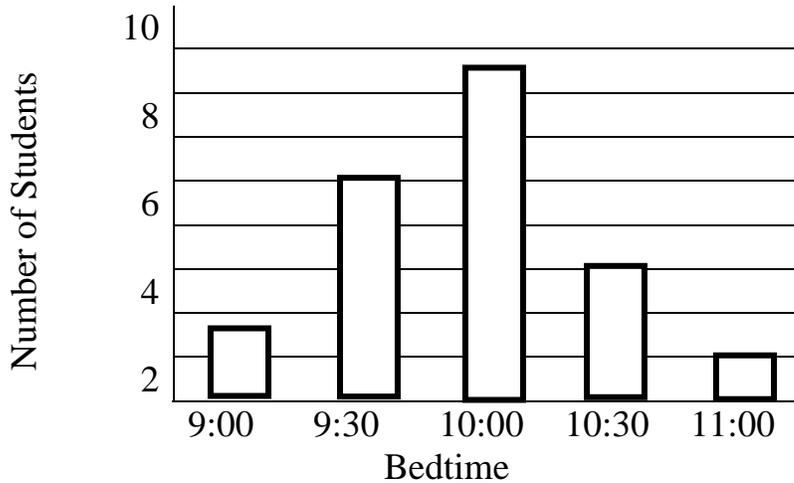
- Explain how you arrived at your estimate.

23. Construct a bar graph that shows the data in the table.

Students per grade	
Grade	Number of students
3	156
4	187
5	114
6	92



25. Here's a graph that shows the time that the 24 students in Ms. Ricardo's class went to bed last night. Write three conclusions that can be made about when the students went to bed last night based on the graph.



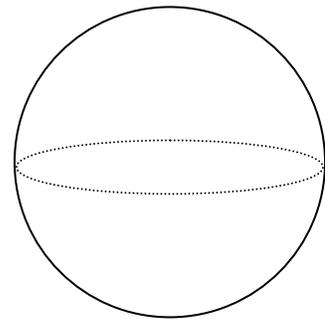
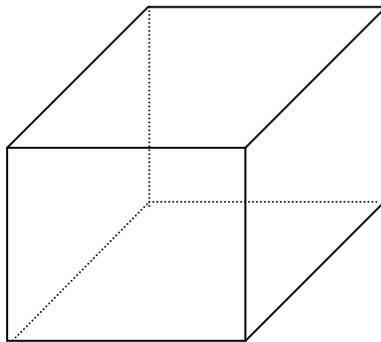
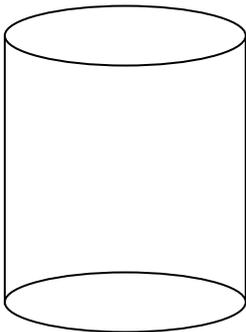
1. _____
2. _____
3. _____

26. Draw a line to match these figures with their names.

SPHERE

CYLINDER

CUBE



27. Which of the following units could you reasonably use to describe each of the following?

cm, m, in, ft, yd, mi, pint, quart, gallon, liter, ml

- The height of your school building? _____
- The distance from New Haven to New York? _____
- The amount of liquid in the small carton of milk? _____

28. Name an object best measured in each of the following units:

Meters _____

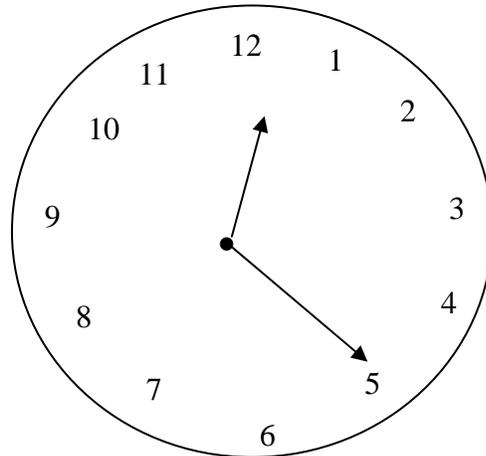
Inches _____

Quarts _____

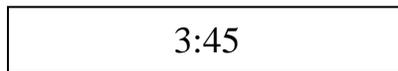
Milliliters _____

29. Name 3 things that are sold in gallons.

30. What time is shown on the clock below?



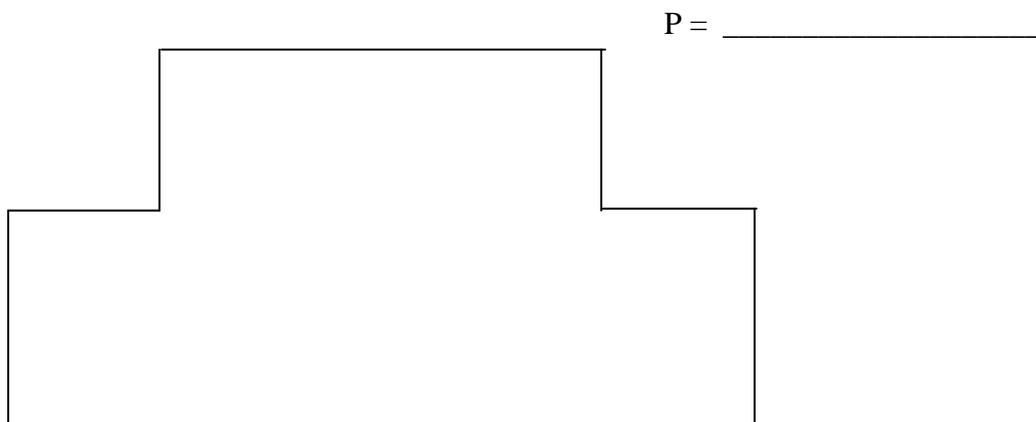
31. Tell how two different people could describe the time shown on the clock below.



32. Luis' watch said 11:00 a.m. when he left to drive to Boston. The watch said 2:00 p.m. when he arrived in Boston. How long did the trip take?

33. Use your ruler to draw a rectangle with a length of 6 cm and a width of 4 cm.

34. Use your ruler to find the perimeter of the figure below to the nearest centimeter. Mark your measurements on the figure.

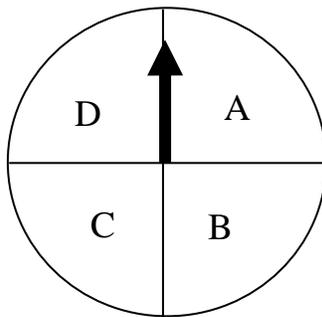


35. Suppose you have a bag with 25 green counters and 10 yellow counters.

a. If you pick a counter without looking, which color are you most likely to pick?

b. Explain how you decided.

36. If you spin the spinner below 40 times, how many times do you think it will land on A?



Explain how you decided.

37. My little brother came home from school and told me what he learned about beavers.

Beavers are very strong animals. They have sharp teeth that they use to build dams that are an average of 65 feet long. The teeth and jaws of a beaver are so powerful they can cut through a tree 20 inches thick in 15 minutes.

If a family of 5 beavers were building a dam and they worked for $1\frac{1}{4}$ hours, how tall would their dam be? Show your work.

The Amusement Park

The 4th and 2nd graders in your school are going on a trip to Wonderland Amusement Park. Each 4th grader is going to be a buddy to a 2nd grader.

Your buddy for the trip wants to go on every ride at the park. Unfortunately, there may not be enough time to go on every ride and you may not have enough tickets to go on every ride. So you and your buddy need a plan for the day.

The bus will drop you off at the amusement park at 10:00 a.m. and pick you up at 1:30 p.m. Each student will get 20 tickets for rides. You and your buddy must also save 30 minutes for lunch.

The chart shows how much time and how many tickets you need for each ride. Use this information to plan a fun day at the amusement park for you and your buddy.

WOUNDERLAND AMUSEMENT PARK		
Ride	Time Required (including waiting in line and time to get to ride)	Number of Tickets Needed
Roller Coaster	45 minutes	4
Merry-Go-Round	15 minutes	1
Ferris Wheel	30 minutes	3
Water Slide	30 minutes	4
Rocket Ride	60 minutes	4
Bumper Cars	15 minutes	2
Blue Lagoon Ride	45 minutes	3

Write a plan for the day that shows **when you will go on each ride** and **when you will eat lunch**.

Write an e-mail to your buddy telling her or him about the plan and why you think it is a good one.

Our Amusement Park Plan

10:00 Arrive

1:30 Meet the bus