

VA SOL Elementary School Math Samples

- 1 Look at the flask.



Dr. Carswell used 100 flasks.

Yamir used 1 flask.

Wendall used 10 flasks.

Fill in the boxes with the numbers of flasks, from the least to the greatest.

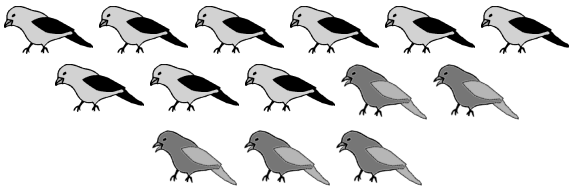
--	--	--

- 2 What number is missing?

$$1 + 5 + 3 = \underline{\quad} + 8$$

- A. 1 B. 3 C. 8 D. 9

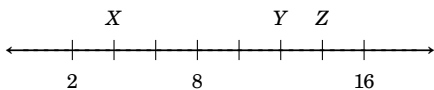
- 3 Connor counts 14 birds. Five of the birds are singing.



How many birds are *not* singing?

- A. 6 B. 7 C. 9 D. 10

- 4 Look at the number line.



What number belongs where you see the letter Y?

- A. 4 B. 7 C. 10 D. 12

- 5 In a certain number the ones digit is greater than the 4, the tens digit is less than 6, and the hundreds digit is 3 less than the ones digit. Which of the following could be that number?

- A. 346 B. 355 C. 643 D. 738

- 6 Marianna reads 2 books to her younger brother every night.

Nights	1	2	3	4	5
Books					

Complete the table.

How many books will she read in 5 nights?

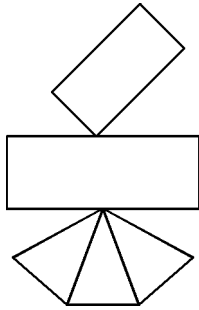
- 7 Estimate the capacity of each container.

Select the better estimate.

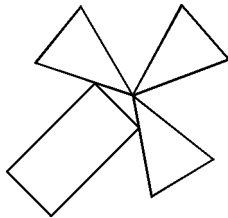
Container	Drawing	Estimate
Saucepan		1 liter 10 mL
Dinner Spoon		1 liter 10 mL
Watering Can		1 liter 10 mL
Bottle Lid		1 liter 10 mL

8 Zashiana created a symmetrical pattern with pattern blocks. Which pattern below could be Zashiana's?

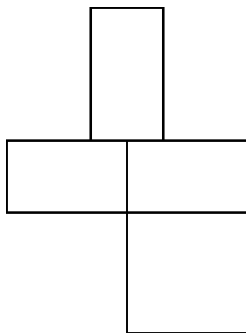
A.



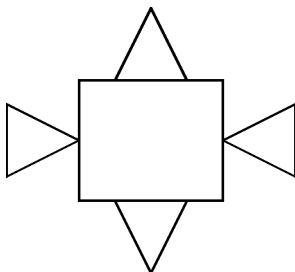
B.



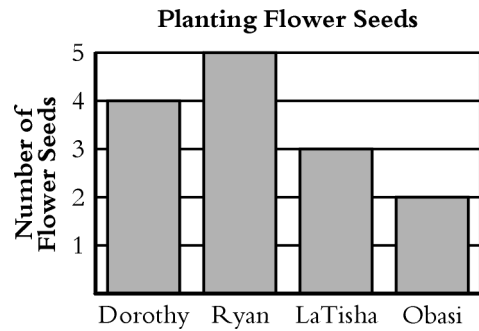
C.



D.



9 Four friends planted flower seeds in pots. The graph shows the number of flower seeds planted by each friend. How many flower seeds did the friends plant in all?



- A. 9 B. 10 C. 12 D. 14

10 Look at the number sentence.

$$50 - 10 = 40$$

Create a story problem that is solved with the number sentence.

11 Joey has 259 earthworms. Is 259 closer to 200 or 300?

12 Mrs. Cooley drew the fraction model below on her board. She shaded a part of it.



What part did she shade?

- A. $\frac{3}{3}$ B. $\frac{3}{4}$ C. $\frac{4}{3}$ D. $\frac{1}{4}$

13 At Fred's Fast Food, they had a special sale on Saturday. They sold 234 hamburgers, 94 hot dogs, 75 tacos, and 89 bowls of chili. What could Fred do to find out how many more hamburgers he sold than hot dogs and tacos?

- A. Subtract 94 from 234.
- B. Add 94 and 75 and 89. Then subtract the sum from 234.
- C. Add 94 and 75. Then subtract the sum from 234.
- D. Add 234 and 94 and 75.

14 Which means the same number as 4×8 ?

4×8

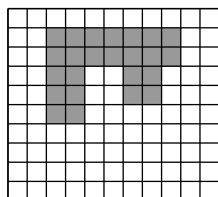
- A. $8 \div 4$
- B. $8 - 4$
- C. 8×4
- D. $8 + 4$

15 There are 4 students. Each student has 3 pencils.

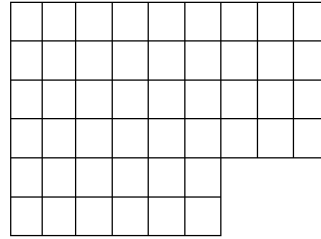
- How many students are there? _____
- How many pencils does each student have? _____
- There are _____ equal groups.
- There are _____ in each group.
- How many pencils are there in all?

16 What is the perimeter of the shaded figure?

- A. 20 units
- B. 21 units
- C. 24 units
- D. 28 units



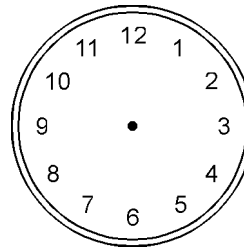
17 Mrs. Meyer was replacing the tile in her bathroom.



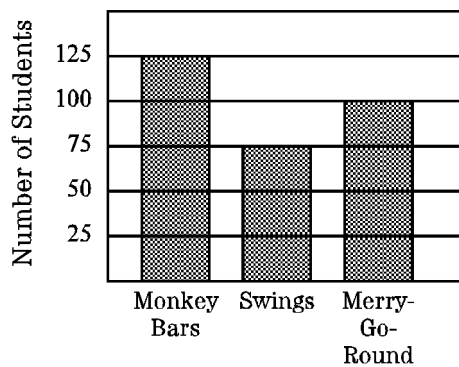
If this diagram represents the tile that Mrs. Meyer needs, how many square feet of tile will Mrs. Meyer need to buy?

- A. 30 square feet
- B. 36 square feet
- C. 48 square feet
- D. 54 square feet

18 Mr. Taylor will take his car to the repair shop at 7:30 on Monday. Draw the hands on the clock to show 7:30.



19 FAVORITE PLAYGROUND EQUIPMENT



The graph shows the favorite playground equipment at Stephenson Elementary School.

How many more students chose the monkey bars as their favorite than chose the Merry-Go-Round?

- A. 125
- B. 100
- C. 75
- D. 25

20 Match the terms on the right with the correct description on the left.

_____ describes an event that cannot happen	probability
_____ the chance that an event will not happen is greater than the chance that an event will happen	outcome
_____ the chance that something will happen	impossible
_____ one single result of a probability experiment	unlikely

21 Drag the correct number into the table to show how many potatoes are in 4 bags.

8 10 18 20

Number of Bags	Number of Potatoes
1	5
2	10
3	15
4	

22 MILEAGE CHART

City	Distance from Dallas
Houston	238
El Paso	617
San Antonio	252
Corpus Christi	377

Jeffrey made a mileage chart for his family to help plan their summer vacation. In order from least number of miles from Dallas to greatest number of miles from Dallas, how should he present these cities to his family?

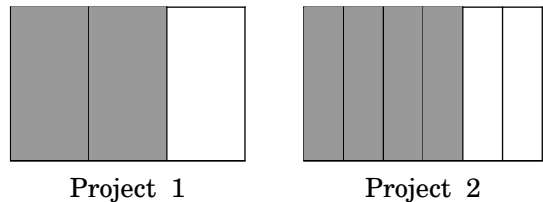
Houston

El Paso

San Antonio

Corpus Christi

23 Talia drew the 2 fraction models below. The shaded part of the models show how much of her art projects were completed.



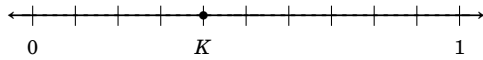
The models show that—

- A. $\frac{2}{3} < \frac{2}{6}$ B. $\frac{1}{3} > \frac{4}{6}$
- C. $\frac{2}{3} = \frac{4}{6}$ D. $\frac{1}{3} = \frac{4}{6}$

24 One day at recess, Tom ran $\frac{3}{4}$ of a mile, David ran $\frac{1}{2}$ of a mile, and Robert ran $\frac{5}{8}$ of a mile. Who ran a distance that is equivalent to $\frac{9}{12}$ of a mile?

- A. Tom B. David
- C. Robert D. none

- 25 Which decimal is represented by the point K ?



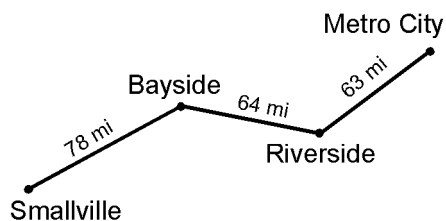
- A. $\frac{8}{10}$ because 0.80 is equivalent to $\frac{8}{10}$
 B. $\frac{6}{10}$ because 0.60 is equivalent to $\frac{6}{10}$
 C. $1\frac{4}{10}$ because 1.40 is equivalent to $1\frac{4}{10}$
 D. $\frac{4}{10}$ because 0.40 is equivalent to $\frac{4}{10}$

- 26 Which of these number sentences is true?

- A. $824 \div 1 = 824 \times 0$
 B. $824 \div 1 = 824 \times 1$
 C. $824 \div 824 = 824 \times 1$
 D. $824 \div 824 = 824 \times 824$

- 27 Michelle has 304 beads. Each friendship necklace requires 66 beads. Does she have enough to make necklaces for 5 friends? If yes, how many beads will be left over? If no, how many more beads will she need?

- 28 On a recent business trip, Mr. Preston drove along the route shown. He drove from Smallville to Metro City on Saturday. Then he drove back to Smallville along the same route on Sunday. How many miles did he drive altogether?

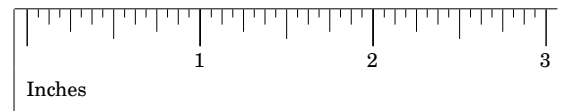
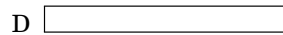
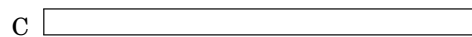


- A. 205 mi B. 268 mi
 C. 383 mi D. 410 mi

- 29 Shania's favorite flower is the petunia. At the plant nursery, Shania counted 6 petunias on each tray. Then she counted 16 trays. What is the total number of petunias that Shania saw at the plant nursery?

- A. 22 petunias B. 66 petunias
 C. 76 petunias D. 96 petunias

- 30 Find the length of bar D.



- A. 1 in. B. $1\frac{1}{4}$ in.
 C. $1\frac{7}{16}$ in. D. $2\frac{1}{2}$ in.

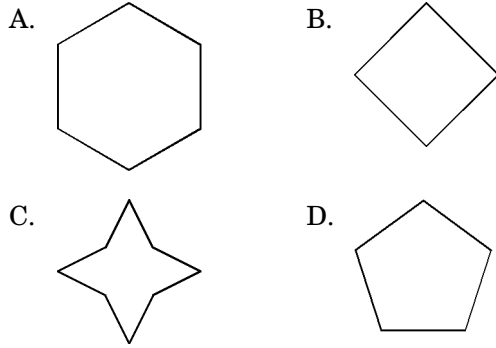
- 31 Pete planted a garden that is 12 feet long by 12 feet wide. If a bag of top soil covers 9 square feet, how many bags will he need?

- A. 3 B. 9 C. 12 D. 16

- 32 Jessica rode her bike 3 miles to Lisa's house. How many feet did she ride her bike to Lisa's house?

- A. 3,600 ft B. 5,280 ft
 C. 12,360 ft D. 15,840 ft

33 Which of the following figures is an octagon?



34 Marshall is training his parrot to talk. He says the same number of words to the parrot each day. The table shows the number of days he has been doing the training.

Parrot Training

number of training days	total words spoken to parrot
4	28
7	49
9	63
11	

Based on this pattern, which expression shows the total number of words Marshall has spoken to his parrot in 11 days?

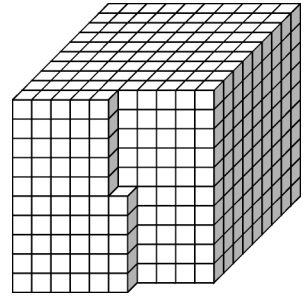
- A. $49 + 63$ B. 9×11
 C. $63 + 7$ D. 11×7

35 Which of the following does *not* round to 31.94?

- A. 31.941 B. 31.942
 C. 31.943 D. 31.945

36 Mark removed 0.045 of a thousandths cube. What fractional part did he remove?

- A. $\frac{4}{5}$
 B. $\frac{45}{100}$
 C. $\frac{45}{1000}$
 D. $\frac{450}{1000}$



37 In an election, a candidate received 2,616 votes. There are 8 counties in his district. On average, how many votes did he receive from each county?

- A. 337 B. 327 C. 317 D. 307

38 Abe is 1.57 meters tall and his father is 1.8 meters tall. How much will Abe have to grow to be as tall as his father?

- A. 3.37 m B. 1.39 m
 C. 0.23 m D. none of these

39 Wesley saved \$20.00 to buy fish for his aquarium. If goldfish cost \$6.98, how many can he buy?

- A. 5 B. 4 C. 3 D. 2

40 Find the sum: $4\frac{1}{3} + 2\frac{4}{5} = \square$

- A. $6\frac{4}{15}$ B. $6\frac{5}{8}$ C. $7\frac{2}{15}$ D. $7\frac{5}{8}$

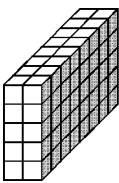
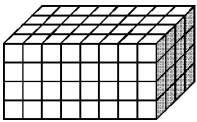
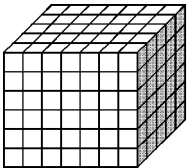
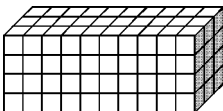
41 Jared did homework for $1\frac{2}{3}$ hours on Tuesday, $2\frac{5}{6}$ hours on Wednesday, and $4\frac{1}{4}$ hours on Thursday. How many hours did Jared spend on homework this week?

- A. $7\frac{5}{12}$ hr B. $8\frac{11}{12}$ hr
 C. $8\frac{3}{4}$ hr D. $8\frac{11}{72}$ hr

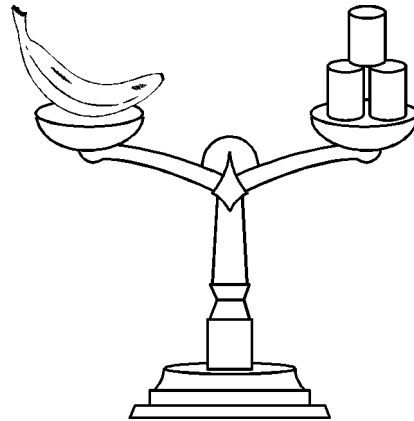
42 A clock chimes twice on the half hour and three times on the hour. How many times will the clock chime between 4:15 pm and 7:15 pm?

- A. 12 B. 15 C. 18 D. 30

43 Which of these rectangular prisms has a volume of 80 cubic units?

- A. 
- B. 
- C. 
- D. 

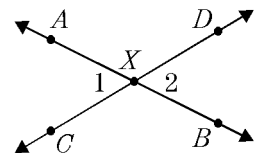
44 Zaire used a balance to measure a banana. She placed the banana on one side and weights on the other. What was Zaire measuring?



- A. Mass B. Volume
 C. Density D. Centimeters

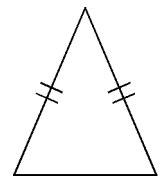
45 Estimate the measure of $\angle AXD$ in the figure shown.

- A. 15° B. 90°
 C. 130° D. 180°



46 The best name for the given triangle is _____.

- A. equilateral
 B. isosceles
 C. right
 D. equiangular



47 Laverne and Walker pondered the list. Which statements can describe all right triangles?

- all equal sides
- two acute angles
- all equal angles
- at least one obtuse angle

48 During one semester Harry got the following scores on his math tests: 72, 75, 93, 93, 69, 81, 84, 72 and 72. What is the mode for these scores?

- A. 79 B. 72 C. 75 D. 93

49 You could use the equation $180 + d = 210$ to solve the following problem.

Corinne is saving to buy a bike that costs \$250. She has \$180 in her savings account. She did some babysitting for her friend Beth and put the babysitting money in her account. Now she has \$210 in her savings account. How much did she add to her account?

What does the “ d ” in the equation represent?

- A. the number of dollars needed to buy the bike
- B. the number of dollars in Corinne’s account
- C. the number of dollars Beth gave Corinne
- D. the number of dollars Corinne gave Beth

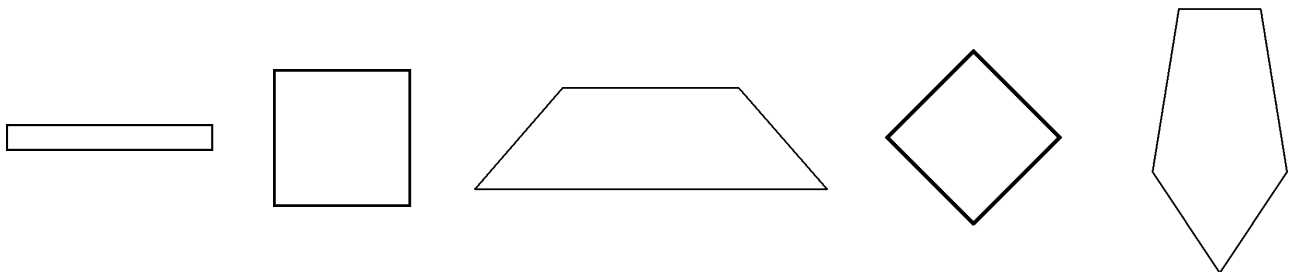
50 Chloe drew 4 shapes but she forgot to label them.

Look at the labels in the box.

polygon circle quadrilateral
rectangle square parallelogram
pentagon hexagon octagon

Write at least one label under each shape.

Use as many labels as you need for each shape.



Problem-Attic format version 4.4.591

© 2011–2020 EducAide Software

Licensed for use by Legler

Terms of Use at www.problem-attic.com

VA SOL Elementary School Math Samples 12/29/2023

1.
Answer: 1,10,100
Objective: 1.4a
Points: 1

2.
Answer: A
Objective: 1.5
Points: 1

3.
Answer: C
Objective: 1.6
Points: 1

4.
Answer: D
Objective: 2.1a
Points: 1

5.
Answer: A
Objective: 2.1a
Points: 1

6.
Answer: 10
Objective: 2.4a
Points: 1

7.
Answer: 1,0,0,1,1,0,0,1
Objective: 2.11c
Points: 1

8.
Answer: D
Objective: 2.15b
Points: 1

9.
Answer: D
Objective: 2.19
Points: 1

10.
Answer: [answers vary]
Objective: 2.21
Points: 1

11.
Answer: 300
Objective: 3.1b
Points: 1

12.
Answer: B
Objective: 3.3a
Points: 1

13.
Answer: C
Objective: 3.4
Points: 1

14.
Answer: C
Objective: 3.5
Points: 1

15.
Answer: 4,3,4,3,12
Objective: 3.6
Points: 1

16.
Answer: D
Objective: 3.10a
Points: 1

17.
Answer: C
Objective: 3.10b
Points: 1

18.
Answer: [task]
Objective: 3.11a
Points: 1

19.
Answer: D
Objective: 3.17c
Points: 1

20.
Answer: [],[],[],[]
Objective: 3.18
Points: 1

21.
Answer: [D]
Objective: 3.19
Points: 1

22.
Answer: 1,3,4,2
Objective: 4.1b
Points: 1

23.
Answer: C
Objective: 4.2a
Points: 1

24.
Answer: A
Objective: 4.2b
Points: 1

25.
Answer: D
Objective: 4.3d
Points: 1

26.
Answer: B
Objective: 4.4c
Points: 1

27.
Answer: No, she will need 26 more beads
Objective: 4.4c
Points: 1

28.
Answer: D
Objective: 4.4d
Points: 1

29.
Answer: D
Objective: 4.4d
Points: 1

30.
Answer: C
Objective: 4.7a
Points: 1

31.
Answer: D
Objective: 4.7b
Points: 1

32.
Answer: D
Objective: 4.7b
Points: 1

33.
Answer: C
Objective: 4.12b
Points: 1

34.
Answer: D
Objective: 4.15
Points: 1

35.
Answer: D
Objective: 5.1
Points: 1

36.
Answer: C
Objective: 5.2a
Points: 1

37.
Answer: B
Objective: 5.4
Points: 1

38.
Answer: C
Objective: 5.5b
Points: 1

39.
Answer: D
Objective: 5.5b
Points: 1

40.
Answer: C
Objective: 5.6
Points: 1

41.
Answer: C
Objective: 5.6
Points: 1

42.
Answer: B
Objective: 5.10
Points: 1

43.
Answer: A
Objective: 5.8a
Points: 1

44.
Answer: A
Objective: 5.8c
Points: 1

45.
Answer: C
Objective: 5.11
Points: 1

46.
Answer: B
Objective: 5.12b
Points: 1

47.
Answer: 2
Objective: 5.12b
Points: 1

48.

Answer: B

Objective: 5.16c

Points: 1

49.

Answer: C

Objective: 5.18d

Points: 1

50.

Answer: polygon, quadrilateral, rectangle,
parallelogram; polygon, quadrilateral,
rectangle, square, parallelogram;
polygon, quadrilateral, trapazoid;
polygon, quadrilateral, rectangle,
square, parallelogram; polygon,
pentagon

Objective: 5.13a

Points: 1