1. Solve: $17 = m - 4$

[A] 68 [B] 21 [C] 13 [D] 23

2. Which of the following numbers is *not* composite?

[A] 9 [B] 7 [C] 25 [D] 39

3. Which number is *not* a factor of 30?

[A] 15 [B] 6 [C] 7 [D] 5

4. List all the factors of 54.

[A] 1, 54 [B] 1, 5, 11, 55

[C] 1, 2, 3, 6, 9, 18, 27, 54 [D] 1, 2, 4, 13, 26, 52, 54

5. Write the prime factorization of 255.

[A] $3 \times 5 \times 17 \times 17$ [B] $2 \times 3 \times 5 \times 17$ [C] $1 \times 3 \times 5 \times 17$ [D] $3 \times 5 \times 17$

6. What is the greatest common factor of 60 and 24?

[A] 120 [B] 12 [C] 30 [D] 3

7. Which is *not* a multiple of 6?

[A] 30 [B] 60 [C] 12 [D] 19

8. Find the least common multiple of 24 and 60.

[A] 120 [B] 360 [C] 1,440 [D] 48

9. $3\frac{1}{2} + 1\frac{1}{2} =$ (Reduce your answer.)

[A] 4 [B] $5\frac{1}{2}$ [C] 5 [D] $4\frac{1}{2}$

10. $1\frac{1}{2} + \frac{4}{7} =$ (Reduce your answer.)

[A] $1\frac{2}{9}$ [B] $2\frac{1}{14}$ [C] $7\frac{1}{4}$ [D] $\frac{11}{14}$

11. $\begin{array}{r} \frac{7}{8} \\ -\ \frac{1}{2} \\ \hline \end{array}$ (Reduce your answer.)

[A] $\frac{1}{40}$ [B] $\frac{3}{8}$ [C] $\frac{57}{80}$ [D] $\frac{56}{8}$

12. $\begin{array}{r} 5\frac{2}{5} \\ -\ 3\frac{1}{5} \\ \hline \end{array}$ (Reduce your answer.)

[A] $3\frac{1}{5}$ [B] $\frac{4}{5}$ [C] $1\frac{3}{5}$ [D] $2\frac{1}{5}$

13. What is the mean of the following data?

12, 3, 4, 13

[A] 12 [B] 13 [C] 7 [D] 8

14. Find the median of 78, 51, 21, 72, and 21.

[A] 21 [B] 49.5 [C] 51 [D] 48.6

15. Name the mode or modes in the following sample.
9, 5, 28, 1, 24, 16, 9, 8, 1, 6, 24

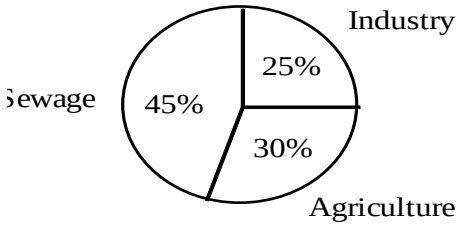
[A] 11.9 [B] 28, 1 [C] 1, 9, 24 [D] 6

16. Find the range of the set of numbers.
7, 13, 29, 17, 24

[A] 36 [B] 22 [C] 17 [D] 21

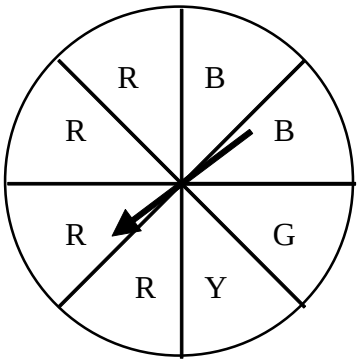
The circle graph below shows the main sources of water pollution.

Sources of Water Pollution



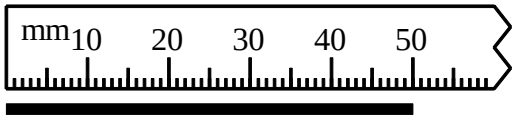
17. According to the circle graph, which is the main source of water pollution?

[A] Industry [B] Agriculture [C] Sewage [D] none of these



18. If you spin the spinner above, what is the probability of the pointer landing on R?

[A] $\frac{1}{4}$ [B] 1 [C] $\frac{1}{2}$ [D] $\frac{3}{8}$



19. How long is the line segment below the ruler?

[A] 50 mm [B] 6 mm [C] 60 mm [D] 5 mm

20. A _____ would be about eight inches long.

[A] pencil [B] desk [C] car [D] shoe lace

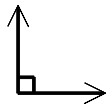
21. 7 feet = __ inches

[A] 21 [B] 70 [C] 84 [D] 168

22. Convert 4 tons to pounds.

[A] 4,000 lbs. [B] 80,000 lbs. [C] 8,000 lbs. [D] 800 lbs.

23. Which of the following is an acute angle?

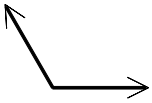
[A] 

[B] 

[C] 

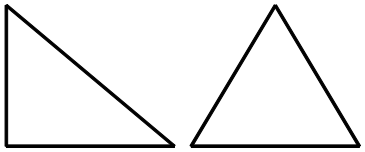
[D] 

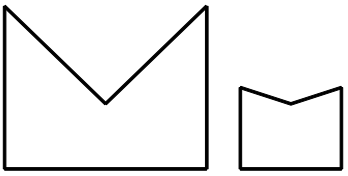
24. Estimate the measure of the angle:

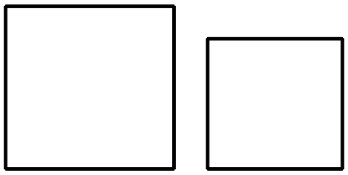


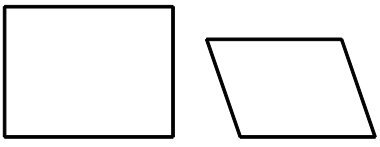
[A] 180° [B] 240° [C] 100° [D] 60°

25. Which best represents a pair of similar figures?

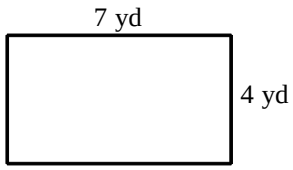
[A] 

[B] 

[C] 

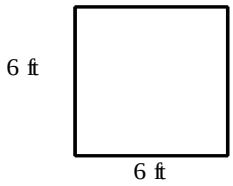
[D] 

26. Find the perimeter of the rectangle.



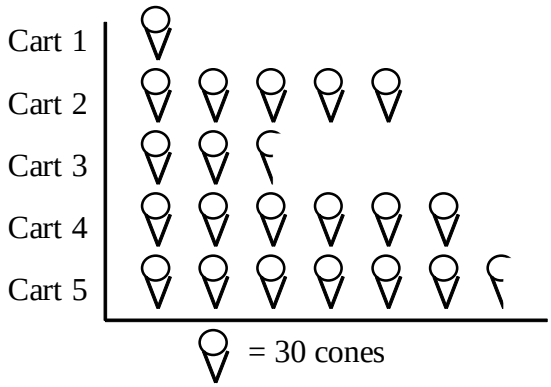
[A] 14 yd [B] 11 yd [C] 28 yd [D] 22 yd

27. What is the area of this square?



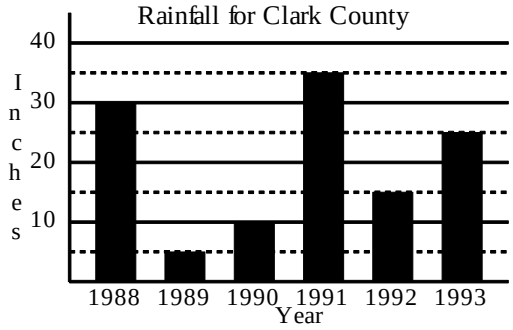
[A] $27\ ft^2$ [B] $36\ ft^2$ [C] $72\ ft^2$ [D] $12\ ft^2$

The graph below shows the number of ice cream cones sold by different ice cream carts.



28. What is the difference in the number of cones sold between Cart 2 and Cart 5?

[A] 1 cone [B] 40 cones [C] $1\frac{1}{2}$ cones [D] 45 cones



29. Using the graph above, find the difference between the amounts of rainfall in the years 1990 and 1988.

[A] 10 in. [B] 5 in. [C] 20 in. [D] 15 in.

30. Which digit is in the thousandths place in 3,740.156?

[A] 3 [B] 6 [C] 5 [D] 7

31. Estimate by rounding to the greatest place: 78.2×3.1

[A] 24 [B] 2,400 [C] 240 [D] 24,000

32. $19.14 \times 32 =$

[A] 421.08 [B] 609.28 [C] 612.48 [D] 292.48

33. $5\overline{)0.6}$

[A] 12.0 [B] 0.102 [C] 0.12 [D] 1.2

34. Write $9\frac{3}{10}$ as an improper fraction.

[A] $\frac{102}{10}$ [B] $\frac{93}{10}$ [C] $\frac{87}{10}$ [D] $\frac{90}{10}$

35. Chef Bobby Flay is going to make chili. Here is the recipe he will use.

Tasty Chili
1 ¾ cups of water
1 can of kidney beans
1/2 cup of fresh tomatoes
5/8 cup of sun-dried tomatoes
3/4 cup of frozen tomatoes

A. What type of tomato will Mr. Flay use the greatest amount of?

B. How many cups of tomatoes are used altogether?

C. Mr. Flay has a measuring cup that holds ¼ cup.

How many times does he fill that cup to add the 1¾ cups of water to the chili?

Show your work clearly **or** explain your answer.