Directions: Choose the best answer for each of the following problems. Choice E is "NOT" for "None of these".

1. $628 - 473 =$

   A. 165 B. 175 C. 145 D. 155 E. NOT

2. $497 + 503 - 288 =$

   A. 712 B. 812 C. 702 D. 802 E. NOT

3. $54 \times 7 =$

   A. 368 B. 378 C. 388 D. 398 E. NOT

4. What is DCCLXIX in Arabic numerals?

   A. 1269 B. 769 C. 1264 D. 764 E. NOT

5. $21 + 23 + 25 + 27 + 29 =$

   A. 115 B. 120 C. 125 D. 130 E. NOT

6. A ball rack has 4 shelves and each shelf is 4 feet long. The balls have a diameter of 8 inches. How many balls can the rack hold?

   A. 18 B. 24 C. 28 D. 32 E. NOT

7. $\dfrac{1}{3} + \dfrac{1}{8} =$

   A. $\dfrac{11}{24}$ B. $\dfrac{13}{24}$ C. $\dfrac{5}{12}$ D. $\dfrac{7}{12}$ E. NOT

8. Lisa has S shirts and P pairs of pants. How many different outfits with one shirt and one pair of pants can she form?

   A. $S + P$ B. $S - P$ C. $S \times P$ D. $S \div P$ E. NOT

9. A car traveled 80 miles in $1\dfrac{1}{4}$ hours. What was the car's average speed?

   A. 54 mph B. 60 mph C. 64 mph D. 72 mph E. NOT

10. $2.56 \times 0.8 =$

     A. 2.048   B. 2.068   C. 2.088   D. 2.108   E. NOT

11. What is the sum of all prime numbers between 25 and 35?

     A. 58   B. 60   C. 62   D. 64   E. NOT

12. How many pints are equivalent to 8 gallons?

     A. 128   B. 32   C. 64   D. 1   E. NOT

13. Solve for N: $5N + 7 = 2N + 19$

     A. 3   B. 6   C. 2   D. 4   E. NOT

14. $3276 \div 9 =$

     A. 376   B. 366   C. 374   D. 364   E. NOT

15. Which symbol goes in the box to make the statement true? $400 \boxed{} 80.3 \times 5.2$

     A. $>$ B. $<$ C. $=$ D. Cannot be determined   E. NOT

16. Find the value of $3^3 + 2^2 - 1^1$.

     A. 30   B. 13   C. 29   D. 12   E. NOT

17. Which of the following is not a divisor of 120?

     A. 5   B. 6   C. 7   D. 8   E. NOT

18. Which of the following ratios is not equivalent to 3 : 4?

     A. 6 : 8   B. 27 : 36   C. 9 : 12   D. 30 : 31   E. NOT

19. Ashton has some coins. She gave $\frac{1}{4}$ of them to Yuri. Of the remaining coins, she gave $\frac{2}{3}$ of them to Fritz. Together, Yuri and Fritz received 120 coins. How many coins does Ashton have left?

     A. 64   B. 60   C. 40   D. 48   E. NOT

20. What is the mean of 61, 72, 68, and 75?

   A. 68   B. 69   C. 70   D. 71   E. NOT

21. Find the sum of the next three terms in the sequence 1, 4, 9, 16, 25, ...

   A. 151   B. 149   C. 147   D. 145   E. NOT

22. $4\frac{1}{3} \times 1\frac{1}{2} =$

   A. $6\frac{1}{2}$ B. $6\frac{1}{6}$ C. $5\frac{5}{6}$ D. $5\frac{2}{3}$ E. NOT
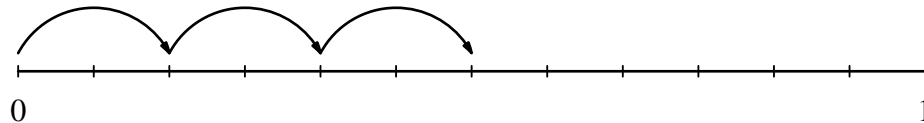
23. The perimeter of a pentagon is 66 cm. Two sides measure 11 cm and 16 cm. The other three sides are congruent. Find the length of these sides.

   A. 14 cm   B. 15 cm   C. 12 cm   D. 13 cm   E. NOT

24. A book costs $26.00. The sales tax rate is 7.5%. Find the total cost after tax.

   A. $27.65   B. $27.85   C. $27.95   D. $28.15   E. NOT

25. What product is shown on the number line?

   A. $3 \times \frac{1}{6}$ B. $6 \times \frac{1}{3}$ C. $3 \times \frac{1}{12}$ D. $6 \times \frac{1}{6}$ E. NOT

26. The rule for this function is multiplication by $\frac{5}{6}$. What number goes in the box?

In	Out
3	$2\frac{1}{2}$
5	$4\frac{1}{6}$
11	☐

   A. $7\frac{2}{3}$

   B. $10\frac{1}{6}$

   C. $8\frac{5}{6}$

   D. $9\frac{1}{6}$

   E. NOT

27. A rectangle has a perimeter of 52 cm. The width is 8 cm shorter than the length. Find the area.

  A. 172 cm^2 B. 153 cm^2 C. 135 cm^2 D. 111 cm^2 E. NOT

28. $\sqrt{576} =$

  A. 24   B. 26   C. 23   D. 27   E. NOT

29. 0.72 = _____ (fraction)

  A. $\dfrac{18}{25}$ B. $\dfrac{17}{25}$ C. $\dfrac{19}{25}$ D. $\dfrac{21}{25}$ E. NOT

30. What percent of 450 is 90?

  A. $17\dfrac{1}{2}\%$ B. 15%   C. 20%   D. 25%   E. NOT

31. $1 + 2 + 3 + 4 + \ldots + 29 =$

  A. 435   B. 455   C. 395   D. 415   E. NOT

32. $\dfrac{14^8}{7^7 \times 2^6} =$

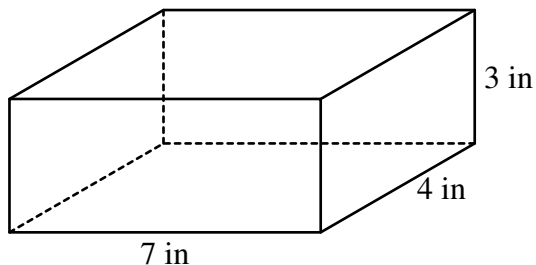 A. 49   B. 28   C. 14   D. 56   E. NOT

33. What is the remainder when 837026 is divided by 9?

  A. 5   B. 3   C. 8   D. 4   E. NOT

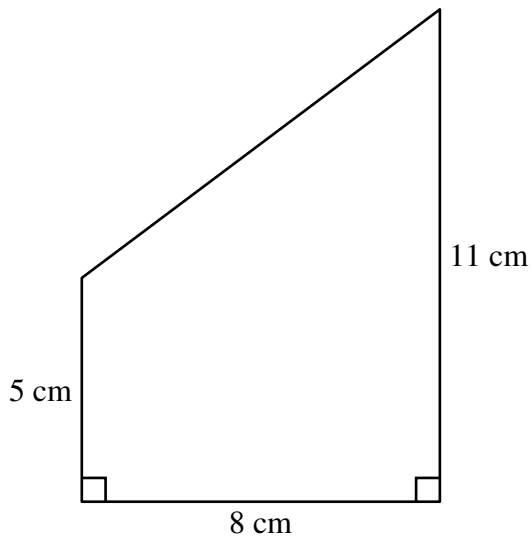34. If $24 \times 15 = 12 \times Q$, what is the value of $8 \times Q$?

  A. 300   B. 160   C. 240   D. 480   E. NOT

35. Find the volume.

  3 in
  4 in
  7 in

  A. 108 in^3
  B. 122 in^3
  C. 72 in^3
  D. 84 in^3
  E. NOT

36. Find the perimeter.

11 cm

5 cm

8 cm

A. 34 cm
B. 30 cm
C. 27 cm
D. 24 cm
E. NOT

37. Marie has $2\frac{2}{3}$ pies left. She cuts the pies to make pieces that are $\frac{1}{6}$ of a whole pie. How many pieces does she have?

A. 10   B. 12   C. 14   D. 16   E. NOT

38. How many 6-character passwords can be created using the letters and numbers A, B, C, 1, 2, and 3 (each once) where the first character is a letter and the last character is a number?

A. 108   B. 144   C. 216   D. 288   E. NOT

39. $(15 \times 1) + (15 \times 2) + (15 \times 3) + (15 \times 4) + (15 \times 5) =$

A. 450   B. 300   C. 150   D. 225   E. NOT

40. The grid below gives the name of the person and the amount of money that person charges to perform each job. All four jobs must be assigned with each person getting a different job. What is the smallest possible cost to have all jobs performed?

	Walk Dog	Clean Room	Wash Dishes	Sweep
Andie	$5	$8	$14	$16
Bri	$8	$9	$22	$18
Carl	$12	$11	$15	$13
Dan	$16	$12	$17	$10

A. $43   B. $39   C. $37   D. $41   E. NOT