New York City death rate per 100,000 population from certain infectious diseases				
	Typhoid Fever	Scarlet Fever	Diptheria	Pulmonary Tuberculosis
1875	31	91	154	376
1885	28	74	170	358
1895	20	39	130	276
1905	18	20	53	224
1915	8	12	28	175
1925	3	4.5	39	76
1935	0.5	4.5	4	55

For questions 1 – 3, refer to the table above.

1. What percent of the total population of New York City died from typhoid fever in 1875 ?

    A. .0031
    B. .031
    C. .31
    D. 3.1
    E. 31

2. How many more persons died from diphtheria in 1895 than in 1905 in new York city ?

    A. 7700
    B. 77,000
    C. 770,000
    D. 7,700,000
    E. cannot be determined

3. For the year 1875 out of every hundred persons in new York city, what were the chances that a person would get scarlet fever?

    A. 9.1
    B. .91
    C. .091
    D. .0091
    E. cannot be determined

4. xy = 45

Column A	Column B
x + y	14

    A. The quantity in Column A is greater
    B. The quantity in Column B is greater
    C. The two quantities are equal.

D. The relationship cannot be determined.

5. Area of square ABCD = 25

Column A	Column B
AB + BC + CD	20

    A. The quantity in Column A is greater
    B. The quantity in Column B is greater
    C. The two quantities are equal.
    D. The relationship cannot be determined.

6. A is now x - 10 years old. How old will he be 10 years from now ?

    A. x - 20
    B. x + 10
    C. x
    D. 10x - 10
    E. x + 20

7. In a triangle ABC, A > B and C = 60

Column A	Column B
side CB	side AB

    A. The quantity in Column A is greater
    B. The quantity in Column B is greater
    C. The two quantities are equal.
    D. The relationship cannot be determined.

8.

Column A	Column B
$(1/x) / [1/(1/x)]$	$(1/x) . (1/x)$

A. The quantity in Column A is greater
B. The quantity in Column B is greater
C. The two quantities are equal.
D. The relationship cannot be determined.

9. In a class composed of x girls and y boys, what part of the class is composed of girls?

A. $y / (x + y)$
B. $x / (xy)$
C. $x / (x + y)$
D. $y / (xy)$
E. $(x + y) / y$

10. $-10 < r < -1$

Column A	Column B
$1 / r^7$	$1/ r^8$

A. The quantity in Column A is greater
B. The quantity in Column B is greater
C. The two quantities are equal.
D. The relationship cannot be determined.

11.

Column A	Column B
Time elapsed from	1/3 hour
2:55 PM to 3:15 PM	
on the same afternoon	

A. The quantity in Column A is greater
B. The quantity in Column B is greater
C. The two quantities are equal.
D. The relationship cannot be determined.

12. $k = 1 / (m+n)$ then $5/k$ is equal to

A. $5(m+n)$
B. $5 / m+n$
C. $m+n / 5$
D. $m+n / 5mn$
E. $(5/m) + (5/n)$

13. To which of the following is $(a/b) - (a/c)$ equal?

A. $a / (b - c)$
B. $1 / (b - c)$
C. $1 / bc$
D. $(ab - ac) / bc$
E. $(ac - ab) / bc$

14. $a : b = c : d$

Column A	Column B
bc	ad

A. The quantity in Column A is greater
B. The quantity in Column B is greater
C. The two quantities are equal.
D. The relationship cannot be determined.

15. If the perimeter of a square is 16, its area is

A. 4
B. 8
C. 16
D. 64
E. 256

16.

Column A	Column B
a^6	$6a^5$

A. The quantity in Column A is greater
B. The quantity in Column B is greater
C. The two quantities are equal.
D. The relationship cannot be determined.

17.

Column A	Column B
½	$(1/2)^3$

A. The quantity in Column A is greater
B. The quantity in Column B is greater
C. The two quantities are equal.
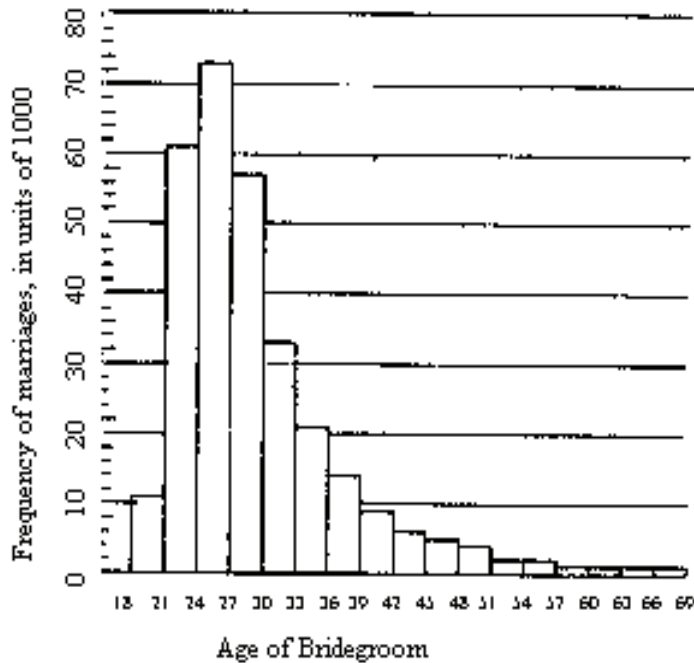D. The relationship cannot be determined.

18.

Column A	Column B
2*4*6*8*10*12*14	16*14*12*10*8*6

A. The quantity in Column A is greater
B. The quantity in Column B is greater
C. The two quantities are equal.
D. The relationship cannot be determined.

19.   Which of the following represents the area of a rectangle whose length is x+1 and whose width is x-1 ?

A. $x^2 + 1$
B. 2x
C. $x^2 - 1$
D. 4x
E. x^2

20.   How many 5 cent stamps can be purchased for c cents

A. 5c
B. c / 5
C. 5 / c
D. 500c
E. 5c / 100

21.   In parallelogram EFGH, EF + EH = 20

Column A	Column B
Length of HG	length of EF

A. The quantity in Column A is greater
B. The quantity in Column B is greater
C. The two quantities are equal.
D. The relationship cannot be determined.

DISTRIBUTION OF 302,000 MARRIAGES
ACCORDING TO AGE OF BRIDEGROOM

For Questions 22 – 25, refer to the bar chart

22. Approximately what percent of the men who married were between the age of 21 and 27 years ?

A. 7%
B. 13%
C. 26%
D. 44%
E. 67%

23. In this group, the number of men who marry at ages 36-39 is probably about

A. 14,000
B. 8,000
C. 6, 000
D. 5,000,000
E. 4,500

24. In one million marriages, how many thousand bridegrooms would you expect to be between the ages of 51 and 60 ?

A. 5
B. 15
C. 16
D. 17
E. 50

25. Which of the following best represents the percent of men who married at age 24 or younger ?

A. 7
B. 10
C. 24
D. 32
E. 48

26.   Which of the following is equal to 45 y?
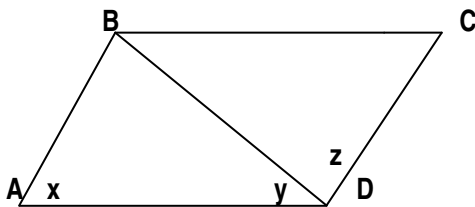(I) 40y + 5y
(II) 80 (y/2 + y/16)
(III) 50y + 4y

A. I only
B. II only
C. I and III only
D. I and II only
E. I, II and III

27.   x > = 0, y -2x = 5

Column A   Column B
x   y

A. The quantity in Column A is greater
B. The quantity in Column B is greater
C. The two quantities are equal.
D. The relationship cannot be determined.

28.   If $x = 60^0$ and $y = 50^0$ in the parallelogram
above, calculate angle z

A. 75^0
B. 70^0
C. 65^0
D. 60^0
E. 55^0