

Data Sufficiency – Practice Exercise

Test – 2

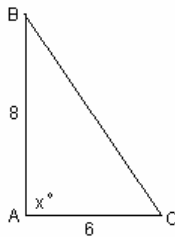
25 Questions

30 Minutes

Directions:

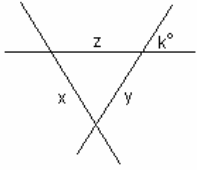
- Mark A: If statement (1) **ALONE** is sufficient, but statement (2) alone is not sufficient.
 Mark B: If statement (2) **ALONE** is sufficient, but statement (1) alone is not sufficient.
 Mark C: If **BOTH** statements **TOGETHER** are sufficient, but **NEITHER** statement **ALONE** is sufficient.
 Mark D: If **EACH** statement **ALONE** is sufficient.
 Mark E: If statements (1) and (2) **TOGETHER** are **NOT** sufficient.

1. What is the total number of employees in the personnel and data processing divisions of Company S ?
 (1) The number of employees in the data processing division is 3 more than twice the number of employees in the personnel division.
 (2) The number of employees in the data processing division is 15.
2. If x and y are integers, is $x + y$ divisible by 6 ?
 (1) x is divisible by 6.
 (2) y is divisible by 6.

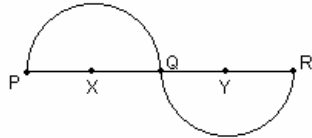


3. In the figure above, what is the length of segment BC ?
 (1) $x = 90$
 (2) The perimeter of $\triangle ABC$ is 24.
4. Of the books that are standing upright along the top shelf of a bookcase, some are $\frac{1}{2}$ inch thick and the rest are $\frac{3}{4}$ inch thick. What is the total number of books standing upright along the top shelf ?
 (1) Half of these books are $\frac{1}{2}$ inch thick.
 (2) The total thickness of all of these books is 25 inches.
5. In the terminating decimal equivalent of d , what is the number of nonzero digits to the right of the decimal point?
 (1) $d = 5 + \frac{416}{1,000}$
 (2) The terminating decimal equivalent of d has one nonzero digit to the left of the decimal point.
6. In a given class, what is the average (arithmetic mean) height per pupil ?
 (1) The average (arithmetic mean) height of the girls in the class is 61 inches.
 (2) The average (arithmetic mean) height of the boys in the class is 64 inches.
7. Richard's salary is greater than \$25,000. Is Amy's salary greater than Brian's salary?
 (1) Brian's salary is 125 percent of Richard's salary, and Amy's salary is greater than 130 percent of Richard's salary.
 (2) Richard's salary is 75 percent of Amy's salary but is 80 percent of Brian's salary.
8. Are integers r and s consecutive ?
 (1) r is odd and s is even.
 (2) $r - s = 1$
9. There are exactly 6 teams in league X. What was the total number of games played by the 6 teams last season?
 (1) Each team in league X played each of the other teams at least once.
 (2) No team in league X played more than 7 games.

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10. Does $x^2 = y$?
 (1) $\sqrt{y} = -x$
 (2) $x < y$
11. In the figure given, x , y , and z denote the lengths of the sides of a triangular flower bed bounded by three driveways. What is the perimeter of the flower bed ?
 (1) $x = y = 30$ feet.
 (2) $k = 60$
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12. Is $r > s$?
 (1) $-r + s < 0$
 (2) $r < |s|$
13. A raincoat and an umbrella cost a total of \$53.50. What is the cost of the raincoat?
 (1) If the cost of the raincoat were to increase by 10 percent, the raincoat and the umbrella would cost a total of \$58.00.
 (2) The cost of the raincoat is \$2.50 more than 5 times the cost of the umbrella.
14. What is the value of $x^2 + 2xy + y^2$?
 (1) $x + y = 7$
 (2) $x = 2$
15. If each of the positive integers a , b , and c is a prime number and $abc = 30$, what is the value of c ?
 (1) $a < b < c$
 (2) $a + b = c$
16. If $y = ax + b$, where a and b are constants, what is the value of y when $x = 10$?
 (1) When $x = 1$, $y = 5$.
 (2) When $x = 5$, $y = 13$.
17. If x and y are positive, then x is what percent of y ?
 (1) 15 is 25 percent of y .
 (2) x is 10 percent of $2y$.
18. In year X a total of 355 billion dollars was spent for health care in the United States, 30 percent of which was spent by private health insurance companies. Was the amount spent for health care by the federal government's Medicare program less than 60 billion dollars?
 (1) In year X Medicare spent more than $\frac{1}{2}$, but less than $\frac{2}{3}$, of the amount spent by the private health insurance companies for health care.
 (2) In year X Medicare spent 50 billion dollars less for health care than the amount spent by private health insurance companies.
19. If $xyz \neq 0$. What is the value of $\frac{z}{y^2}$?
 (1) $x = \frac{3}{4}y$ (2) $z = \frac{2}{3}x$
20. Jane is in a certain ticket line in which each of the other people in the line is either behind her or ahead of her. In the line, the number of people ahead of Jane is 5 more than the number of people behind her. What is the total number of people in the line?
 (1) There are 11 people ahead of Jane in the line.
 (2) The total number of people in the line is 3 times the number of people behind Jane.
21. In the rectangular coordinate system, if line λ is parallel to one of the axes, does line λ contain the point $(4, 5)$?
 (1) Line λ contains the point $(4, -5)$.
 (2) Line λ crosses the x -axis.

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22. In the figure above, if PR is a line segment, what is the sum of the lengths of the curved paths from P to Q and from Q to R ?
- (1) $XQ = QY = 5$ centimeters.
 - (2) Every point on arc PQ is 5 centimeters from point X , and every point on arc QR is 5 centimeters from point Y .
23. Last year Luis invested x dollars for one year, half at 8 percent simple annual interest and the other half at 12 percent simple annual interest. Now he wants to reinvest the x dollars for one year in the same two types of investments, but the lower rate has decreased. If the higher rate is unchanged, what fraction of the x dollars must he reinvest at the 12 percent rate so that the total interest earned from the x dollars will be the same for both years ?
- (1) The lower rate is now 6 percent.
 - (2) The total amount of interest earned from the two investments last year was \$3,000.
24. Is the integer n a multiple of 140 ?
- (1) n is a multiple of 10.
 - (2) n is a multiple of 14.
25. If x , y , and n are positive integers, is $\left(\frac{x}{y}\right)^n$ greater than 1,000 ?
- (1) $x = y^3$ and $n > y$.
 - (2) $x > 5y$ and $n > x$.

Answer Key:

1-C	2-C	3-D	4-C	5-A	6-E	7-D	8-B	9-E	10-A
11-C	12-A	13-D	14-A	15-D	16-C	17-B	18-B	19-E	20-D
21-C	22-B	23-A	24-E	25-B					