

66

3. The value of  $y$  in Question 2 lies in the range

- (1)  $-4 \leq y \leq -2$ .      (3)  $0 \leq y \leq 2$ .  
 (2)  $-2 \leq y \leq 0$ .      (4)  $2 \leq y \leq 4$ .

4. The value of  $z$  in Question 2 lies in the range

- (1)  $-4 \leq z \leq -2$ .      (3)  $0 \leq z \leq 2$ .  
 (2)  $-2 \leq z \leq 0$ .      (4)  $2 \leq z \leq 4$ .

5. Given the equation

$$\frac{y-x}{6} - \frac{3x-y}{9} = 4 - \frac{x+2y}{4} + \frac{x+4y}{12}$$

 $g(y)$  is

- (1)  $0.632x + 12$ .      (3)  $1.333y - 12$ .  
 (2)  $0.750y + 12$ .      (4)  $1.333x - 12$ .

6. A fourth-order linear system can be solved by the

- (1) graphical methods shown in the lesson.  
 (2) determinant methods shown in the lesson.  
 (3) both (1) and (2).  
 (4) substitution method shown in the lesson.

7. Solve these linear equations for  $x$  and  $y$ :

$$15(x-y) - 10(y+0.2) + 15 = 30(x+y) - 6(y-2x)$$

$$10(3x-y) - 5(5x+y) = 4(5x+y) - 40(y+0.06)$$

(Hint: verify by substituting your values in the above equations.)

the value of  $x$  is in the range (Choose your answer from the choices given for Question 2.)8. The value of  $y$  in Question 7 is in the range (Choose your answer from the choices given for Question 3.)9. Which of the graphs in Fig. 38 is of  $f(x) = x^2 - 3x - 4$ ?

- (1) (a)      (2) (b)      (3) (c)      (4) (d)

10. Evaluate the determinant

$$\begin{vmatrix} 7 & -3 & 4 \\ 5 & -1 & 0 \\ 2 & 0 & 1 \end{vmatrix}$$

- (1)  $-9$       (3)  $7$       (5)  $9$   
 (2)  $0$       (4)  $5$       (6)  $16$   
 (7) None of the above