

$$5(x-1) \geq 3x+9$$

$$5x-5 \geq 3x+9$$

$$5x-3x \geq 9+5$$

$$2x \geq 14 \rightarrow x \geq 7$$

$$y = -2x + 5$$

$$\frac{a-1+a-7}{a-4} = \frac{2a-8}{a-4} = \frac{2(a-4)}{a-4} = 2$$

$$\frac{m-5}{m+3} \times \frac{(m-3)(m+3)}{(m+5)(m-3)} = \frac{m-5}{m+5}$$

$$\begin{cases} -2x + y = 6 \\ 4x - 6y = 4 \end{cases} \xrightarrow{\times 2} \begin{cases} -4x + 2y = 12 \\ 4x - 6y = 4 \end{cases}$$

$$-4y = 16$$

$$\Rightarrow \boxed{y = -4}$$

$$4x + 24 = 4$$

$$4x = -20 \rightarrow \boxed{x = -5}$$

$$\begin{array}{r} 4x^2 - 7x + 2 \quad | \quad x-1 \\ -4x^2 + 4x \quad \quad \quad 4x-2 \\ \hline -4x+2 \\ \quad \quad \quad +2x-2 \\ \hline \end{array}$$

$$S = 4\pi r^2$$

$$10 \cdot \pi \Rightarrow 4\pi r^2 = r^2 = \frac{10 \cdot \pi}{4\pi} = 2.5 \Rightarrow r = 5$$

$$V = \frac{1}{3} \pi r^2 h = \frac{1}{3} \times 3 \times 14 \times \frac{12}{6} \times 9 = 339/12 \quad (\text{ب})$$

$$S = 8 \times 4 = 32$$

$$V = \frac{1}{3} Sh = \frac{1}{3} \times 32 \times \frac{6}{2} = 64$$

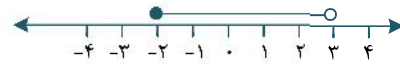
۱۱- الف) غلط (ب) غلط (ج) صحیح (د) صحیح

۱۲- الف) استوانه (ب) اثبات (ج) چهار (د) همنهشت

۱۳- الف) گزینه ۲ (ب) گزینه ۴ (ج) گزینه ۱

$$A - B = \{1, 2, 9\} \quad A \cap B = \{3, 4\} \quad (\text{الف})$$

$$\frac{6}{36} = \frac{1}{6} \quad (\text{ب})$$



۱۴- الف) ۵ (ب)  $\sqrt{3}-1$  (ج)  $6/95 \times 10^5$  (د)  $\frac{1}{36}$

$$\frac{1}{3000} = \frac{4cm}{x}$$

$$= x = 3000 \times 4cm = 12000cm \xrightarrow{+100} 120m$$

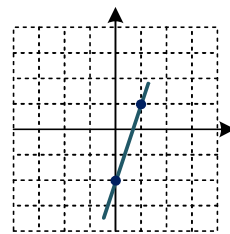
۱۵- بنابر حالت (ز ض ز) (ب)

$$\frac{1}{3000} = \frac{4cm}{x}$$

$$= x = 3000 \times 4cm = 12000cm \xrightarrow{+100} 120m$$

$$\left. \begin{array}{l} \hat{O}_1 = \hat{O}_2 \\ \hat{A} = \hat{B} = 90^\circ \\ OA = OB \end{array} \right\} \Rightarrow \hat{O}AD \cong \hat{O}BC \Rightarrow AD = BC$$

۱۶- الف) (ب)  $\frac{1}{3}$  (ج)  $\frac{1}{\sqrt{6}} \times \frac{\sqrt{6}}{\sqrt{6}} = \frac{1\sqrt{6}}{6} = \frac{4\sqrt{2}}{3}$  (د)  $4a^2 + 12ab + 9b^2$



x	0	1
y	-2	1
$\begin{bmatrix} x \\ y \end{bmatrix}$	$\begin{bmatrix} . \\ -2 \end{bmatrix}$	$\begin{bmatrix} 1 \\ 1 \end{bmatrix}$

۱۷- عرض از مبدأ = -2 (ب) شیب = 3 (ج)  $\frac{1}{\sqrt{6}} \times \frac{\sqrt{6}}{\sqrt{6}} = \frac{1\sqrt{6}}{6} = \frac{4\sqrt{2}}{3}$  (د)  $4a^2 + 12ab + 9b^2$

$$\sqrt{9 \times 7} + 2\sqrt{4 \times 7} = 3\sqrt{7} + 4\sqrt{7} = 7\sqrt{7} \quad (\text{الف})$$

$$\frac{1}{\sqrt{6}} \times \frac{\sqrt{6}}{\sqrt{6}} = \frac{1\sqrt{6}}{6} = \frac{4\sqrt{2}}{3} \quad (\text{ب})$$

$$4a^2 + 12ab + 9b^2 \quad (\text{الف})$$

$$(x-5)(x+5) \quad (\text{ب})$$