ANNEXURE-C

	DAV PUBLIC SCHOOLS, OD			
	PA-II EXAMINATION, [SUBJECT: MATHEMATICS	—		
	MARKING SCHEM			
SL NO	VALUE POINTS	Marks Allotted to each value Point / Key Points	Total Marks	PAGE NO. OF NCERT/ TEXTBOOK
1.	C.46	[1]	[1]	PAGE-22
2.	A.10	[1]	[1]	PAGE-23
3.	D. (xy) remains constant	[1]	[1]	PAGE-64
4.	C.8	[1]	[1]	PAGE-64
5.	A.5%	[1]	[1]	PAGE-79
6.	C.4	[1]	[1]	PAGE-125
7.	C. (0,-2)	[1]	[1]	PAGE-216
8.	C.4 units	[1]	[1]	PAGE-226
9.	B.8 m	[1]	[1]	PAGE-231
10.	B.Volume of the cylinder will remain unchanged.	[1]	[1]	PAGE-248
11.	a) Both assertion (A) and reason (R) are true and reason (R) is the correct explanation of assertion (A).	[1]	[1]	PAGE-5
12.	d) Assertion (A) is false but reason (R) is true.	[1]	[1]	PAGE-164
13.	a) B. Alternate exterior Angle	[1]	[1]	PAGE-164
	b) D. 90°	[1]	[1]	
	c) $y = 130^{\circ}$,	[1]		
	$p = 50^{\circ}$ OR $x = 130^{\circ},$ $m = 130^{\circ}$	[1] [1] [1]	[2]	
14.	a) C.3.5 m	[1]	[1]	PAGE-248
	b) B.770 cu.m volume of earth that will be dug out $= \pi r^2 h$ $= \frac{22}{7} \times \frac{7}{2} \times \frac{7}{2} \times 20$ $= 770 \ cubic \ m$	[1]	[1]	
	Let Height of platform is h m ATQ, $22 \times 14 \times h = 770$ $\Rightarrow h = \frac{770}{22 \times 14}$ = 2.5 m	$[\frac{1}{2}]$ $[\frac{1}{2}]$ [1]	[2]	

	OR			
15.	CSA of the well $= 2\pi rh$ $= 2 \times \frac{22}{7} \times \frac{7}{2} \times 20$ $= 440 \ sq. \ cm$ 3750 = 2 × 3 × 5 ⁴ If we will multiply 2 × 3 = 6 with 3750 then the product will be a perfect square.	$ \begin{bmatrix} 1 \\ 2 \end{bmatrix} $ $ \begin{bmatrix} 1 \\ 2 \end{bmatrix} $ $ \begin{bmatrix} 1 \end{bmatrix} $ $ \begin{bmatrix} 1 \end{bmatrix} $ $ \begin{bmatrix} 1 \end{bmatrix} $	[2]	PAGE-10
16.	$ \begin{array}{r} $	$\begin{bmatrix} 1 \frac{1}{2} \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\$	[2]	PAGE-10 PAGE-23
17.	= 9.668 Let the original Number be x Cube of the original number = x^3 If the number is tripled then the new number = $3x$ Cube of New Number = $(3x)^3$ = $27x^3$ = $27 \times x^3$ = $27 \times x^3$ = 27 times the cube of original number Hence Proved	$\begin{bmatrix} \frac{1}{2} \\ \frac{1}{2} \end{bmatrix}$	[2]	PAGE-35
18.	Volume of box = $(60 \times 54 \times 30)$ cu. cm Volume of Small cube = $(6 \times 6 \times 6)$ cu. cm Number of small cubes = $\frac{60 \times 54 \times 30}{6 \times 6 \times 6}$ = 450	$\begin{bmatrix} \frac{1}{2} \\ \frac{1}{2} \end{bmatrix}$ [1]	[2]	PAGE-245
19.	$4.2x = 7.1 \times 7.1 - 2.9 \times 2.9$ $\Rightarrow 4.2x = 7.1^{2} - 2.9^{2}$ $\Rightarrow 4.2x = (7.1 + 2.9)(7.1 - 2.9)$ $\Rightarrow 4.2x = 10 \times 4.2$ $\Rightarrow x = 10$	$\begin{bmatrix} 1 \\ 2 \\ 1 \\ 2 \end{bmatrix}$ $\begin{bmatrix} 1 \\ 2 \\ 1 \\ 2 \end{bmatrix}$ $\begin{bmatrix} 1 \\ 2 \\ 1 \\ 2 \end{bmatrix}$ $\begin{bmatrix} 1 \\ 2 \\ 1 \\ 2 \end{bmatrix}$	[2]	PAGE-126

20.	-4 L			PAGE-125
	$a^{-} + \frac{1}{a^4}$			
	$a^{4} + \frac{1}{a^{4}}$ = $\left(a^{2} + \frac{1}{a^{2}}\right)^{2} - 2 \times a^{2} \times \frac{1}{a^{2}}$	[1]		
	$= 6^2 - 2 = 36 - 2 = 34$	[1]		
	OR		[2]	
	$a^2 - 5a - 6$ $= a^2 - 6a + a - 6$			PAGE-124
	$=a^2-6a+a-6$	[1]		FAGE-124
	= a(a-6) + 1(a-6)	$[\frac{1}{2}]$		
	= (a-6)(a+1)	$\begin{bmatrix} 1\\ \frac{1}{2} \end{bmatrix}$ $\begin{bmatrix} \frac{1}{2} \end{bmatrix}$		
21.	y = 2x	$\left[\frac{1}{2}\right]$		PAGE-168
	$4x + 2x = 180^{\circ}$	[1]	[2]	
	$\Rightarrow x = 30^{\circ}$	$[\frac{1}{2}]$		
22.	F = 6			PAGE-256
	E = 12			
	$V \perp F = F - 2$	$\left[\frac{1}{2}\right]$		
	V + F - E = 2 $\Rightarrow V + 6 - 12 = 2$	$\begin{bmatrix} \frac{1}{2} \\ \frac{1}{2} \end{bmatrix}$ $\begin{bmatrix} \frac{1}{2} \\ \frac{1}{2} \end{bmatrix}$	[2]	
	$\Rightarrow V + 0 12 = 2$ $\Rightarrow V = 8$	$[\frac{1}{2}]$		
	Cuboid	$\left[\frac{1}{2}\right]$		
23.	Side of Square field = $\sqrt{5184} = 72 m$	_		PAGE-23
-0.	Perimeter of Square field	$\left[\frac{1}{2}\right]$		
	$= 4 \times side = 4 \times 72 = 288 m$	$\left[\frac{1}{2}\right]$		
	Let Breadth of rectangular field be $x m$			
	Length of rectangular field be $2x m$	$\left[\frac{1}{2}\right]$		
	Perimeter of rectangular field be $6x m$			
	ATQ, $6x = 288 \Rightarrow x = 48 m$	$[\frac{1}{2}]$		
	Length of rectangular field be 96 m	ړ ¹ ז	[3]	
	Breadth of rectangular field be $48 m$	$[\frac{1}{2}]$		
	Area of rectangular field be 4608 sq. m	$[\frac{1}{2}]$		
	OR			
	Area of each Square piece of cloth $=\frac{9}{16} sq.m$	[1]		PAGE-21
	Area of each Square piece of cloth			
	$=\sqrt{\frac{9}{16}}=\frac{3}{4}m=75\ cm$	[2]		

$\sqrt{10} = 3.162 \dots$	~ 3.16		$\left[\frac{1}{2}\right]$		PAGE-21
_	3.162	_			
3 (+) 3 (-		ō	[<mark>1</mark> 2]		
61 (+) ¹ (-	100 -) 61	,	[<u>1</u>]	[3]	
626 (+) 6	3900 3756		[<mark>1</mark> 2]		
6322	14400		$\left[\frac{1}{2}\right]$		
I	756	; •	[<mark>1</mark>]		
$3 200^{3} [\tau 4^{3}/(4)]$					PAGE-36
V288V54V64			۲ <u>1</u> 1		
$=\sqrt[3]{288\sqrt[3]{54\times 4}}$					
$-\frac{3}{299^{3}/216}$			$\left[\frac{1}{2}\right]$	[3]	
N			$\left[\frac{1}{2}\right]$		
$= \sqrt{288 \times 6}$ $= \sqrt[3]{1728}$			$[\frac{1}{2}]$		
= 12.					
					PAGE-63
	in 1 seconds $= y$	<i>m</i>	[1]		
(x)	12	1			
Distance in m. (y)	300	у		[3]	
	ct variation		[1]		
$\frac{12}{300} = \frac{1}{y}$					
$\Rightarrow y = 25$			[¹ / ₂]		
Speed of train $= 2$	$25\frac{m}{s}$				
	3 $(+)$ 3 $(+)$ 61 $(+)$ 1 $(+)$ 626 $(+)$ 6322 $(+)$ 63222 $(+)$ 63222 $(+)$ 63222 $(+)$ 63222 $(+)$ 63222 $(+)$ 63222 $(+)$ 63222 $(+)$ 63322 $(+)$	$3 \qquad 10.000000$ $(+) \qquad 3 \qquad (-) \qquad 9 \qquad (-) \qquad 9 \qquad (-) \qquad $	3.162 3.162 3.162 $3 10.00000$ $(+) 3 10.00000$ $(+) 1 0.00000$ $(+) 1 0.00000$ $(+) 6 1 1000$ $(+) 6 1 0.0000$ $(-) 576$ 3756 $322 14400$ $(-) 12644$ 756 $3\sqrt{288}^{3}\sqrt{54}\sqrt{64}$ $= \sqrt[3]{288}^{3}\sqrt{54}\sqrt{44}$ $= \sqrt[3]{288}^{3}\sqrt{54}\sqrt{44}$ $= \sqrt[3]{288}^{3}\sqrt{216}$ $= \sqrt[3]{288}^{3}\sqrt{216}$ $= \sqrt[3]{288}^{3}\sqrt{216}$ $= \sqrt[3]{288}\sqrt{288} \times 6$ $= \sqrt[3]{1728}$ $= 12.$ Total distance covered = 210 + 90 = 300 m Distance covered in 12 seconds = 300 m Distance covered in 12 seconds = 300 m Distance covered in 1 seconds = y m $\frac{11000}{1100000000000000000000000000000$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c c} 3.162 \\ \hline & 1 & 0 & 0 & 0 & 0 & 0 & 0 \\ \hline & 1 & 1 & 0 & 0 & 0 & 0 & 0 & 0 \\ \hline & 6 & 1 & 1 & 0 & 0 & 0 & 0 & 0 & 0 \\ \hline & 6 & 1 & 1 & 0 & 0 & 0 & 0 & 0 & 0 \\ \hline & 6 & 1 & 1 & 0 & 0 & 0 & 0 & 0 & 0 \\ \hline & 6 & 1 & 1 & 0 & 0 & 0 & 0 & 0 \\ \hline & 6 & 2 & 2 & 0 & 14400 & 0 & 0 \\ \hline & 6 & 3 & 2 & 2 & 0 & 14400 & 0 & 0 \\ \hline & 6 & 3 & 2 & 2 & 0 & 14400 & 0 & 0 \\ \hline & 6 & 3 & 2 & 2 & 0 & 14400 & 0 & 0 \\ \hline & 6 & 3 & 2 & 2 & 0 & 14400 & 0 & 0 \\ \hline & 6 & 3 & 2 & 2 & 0 & 14400 & 0 & 0 \\ \hline & 6 & 3 & 2 & 2 & 0 & 14400 & 0 & 0 \\ \hline & 6 & 3 & 2 & 2 & 0 & 14400 & 0 & 0 \\ \hline & 6 & 3 & 2 & 2 & 0 & 14400 & 0 & 0 \\ \hline & 6 & 3 & 2 & 2 & 0 & 14400 & 0 & 0 \\ \hline & 5 & 3 & 756 & 0 & 0 & 0 & 0 \\ \hline & 5 & 3 & 756 & 0 & 0 & 0 & 0 \\ \hline & 5 & 3 & 756 & 0 & 0 & 0 & 0 \\ \hline & 5 & 3 & 756 & 0 & 0 & 0 & 0 \\ \hline & 5 & 3 & 756 & 0 & 0 & 0 & 0 \\ \hline & 5 & 3 & 756 & 0 & 0 & 0 & 0 \\ \hline & 5 & 3 & 756 & 0 & 0 & 0 & 0 \\ \hline & 5 & 3 & 756 & 0 & 0 & 0 & 0 \\ \hline & 5 & 3 & 756 & 0 & 0 & 0 & 0 \\ \hline & 5 & 3 & 756 & 0 & 0 & 0 & 0 \\ \hline & 5 & 3 & 756 & 0 & 0 & 0 & 0 \\ \hline & 5 & 3 & 756 & 0 & 0 & 0 \\ \hline & 5 & 3 & 756 & 0 & 0 & 0 & 0 \\ \hline & 5 & 3 & 756 & 0 & 0 & 0 & 0 \\ \hline & 5 & 3 & 756 & 0 & 0 & 0 & 0 \\ \hline & 5 & 3 & 756 & 0 & 0 & 0 & 0 \\ \hline & 5 & 3 & 756 & 0 & 0 & 0 & 0 \\ \hline & 5 & 3 & 756 & 0 & 0 & 0 \\ \hline & 5 & 3 & 756 & 0 & 0 & 0 \\ \hline & 5 & 3 & 756 & 0 & 0 & 0 \\ \hline & 5 & 3 & 756 & 0 & 0 & 0 \\ \hline & 5 & 3 & 756 & 0 & 0 & 0 \\ \hline & 5 & 3 & 756 & 0 & 0 & 0 \\ \hline & 5 & 5 & 0 & 0 & 0 & 0 \\ \hline & 5 & 5 & 0 & 0 & 0 & 0 \\ \hline & 5 & 5 & 0 & 0 & 0 & 0 \\ \hline & 5 & 5 & 0 & 0 & 0 & 0 \\ \hline & 5 & 5 & 0 & 0 & 0 & 0 \\ \hline & 5 & 5 & 0 & 0 & 0 & 0 \\ \hline & 5 & 5 & 0 & 0 & 0 & 0 \\ \hline & 5 & 5 & 0 & 0 & 0 & 0 \\ \hline & 5 & 5 & 0 & 0 & 0 & 0 \\ \hline & 5 & 5 & 0 & 0 & 0 & 0 \\ \hline & 5 & 5 & 0 & 0 & 0 & 0 \\ \hline & 5 & 5 & 0 & 0 & 0 & 0 \\ \hline & 5 & 5 & 0 & 0 & 0 \\ \hline & 5 & 5 & 0 & 0 & 0 & 0 \\ \hline & 5 & 5 & 0 & 0 & 0 & 0 \\ \hline & 5 & 5 & 0 & 0 & 0 & 0 \\ \hline & 5 & 5 & 0 & 0 & 0 & 0 \\ \hline & 5 & 5 & 0 & 0 & 0 & 0 \\ \hline & 5 & 5 & 0 & 0 & 0 & 0 \\ \hline & 5 & 5 & 0 & 0 & 0 & 0 \\ \hline & 5 & 5 & 0 & 0 & 0 & 0 \\ \hline & 5 & 5 & 0 & 0 & 0 & 0 \\ \hline & 5 & 5 & 0 & 0 & 0 \\ \hline & 5 & 5 & 0 & 0 &$

	$= \left(25 \times \frac{18}{5}\right) \frac{km}{hr} = 90 \frac{km}{hr}$	$\left[\frac{1}{2}\right]$		
27.	Marked Price of TV, $MP = Rs.32500$	2		PAGE-76
	% Discount = 20%			
	Selling Price of TV,			
	$SP = MP\left(\frac{100 - Discount\%}{100}\right)$			
	$= 32500 \left(\frac{100 - 20}{100}\right)$	$[1\frac{1}{2}]$		
	= Rs.26000			
	Profit% = 30%			
	Cost Price of TV,			
	$CP = \frac{SP \times 100}{100 + Profit\%}$			
	$-\frac{26000 \times 100}{100}$			
	-100+30			
	$=\frac{26000 \times 100}{130}$	4	[3]	
	= Rs. 20000	$[1\frac{1}{2}]$		
	OR			
	Total number of Blade packets $= 250$			DACE 71
	Number of Blade packets of SP Rs. 11 per packet			PAGE-71
	$= 75\% \ of \ 250 = 175$	[4]		
	Number of Blade packets of SP Rs. 9 per packet	[1]		
	= 250 - 175 = 75			
	Total CP = $250 \times 8 = Rs.2000$			
	Total SP = $175 \times 11 + 75 \times 9 = Rs.2600$	[1]		
	Profit = sp - cp = 1600 - 2000 = Rs.600	[1]		
	% Profit = $\frac{Profit}{CP} \times 100 = \frac{600}{2000} \times 100 = 30\%$	[1]		
28.	The area of a circle = $(\pi x^2 + 10\pi x + 25\pi)$ square			PAGE-127
	units			
	$\Rightarrow \pi r^2 = \pi (x^2 + 10x + 25)$	[1]		
	$\Rightarrow r^2 = (x+5)^2$	[1]		
	$\Rightarrow r = (x + 5)$ units	[1]	[3]	
	Circumference of circle = $2\pi r$	[I]		
	$= 2 \times \pi \times (x+5)$			
	$=(2x+10)\pi$ units	[1]		

$\begin{array}{ c c c c } & \angle ABD = \angle BDC = x \\ & \angle ADC = 2x \\ & x = 180^{\circ} - (90^{\circ} + 55^{\circ}) = 180^{\circ} - 145^{\circ} = 35^{\circ} \\ & [1] \\ & Co-interior Angle] \\ & 2x + y = 180^{\circ} Co-interior Angle] \\ & y = 110^{\circ} & [Co-interior Angle] \\ & y = 180^{\circ} - 110^{\circ} = 70^{\circ} Co-interior Angle] \\ & x = 180^{\circ} - (70^{\circ} + 50^{\circ}) = 60^{\circ} \\ & [Angle sum property of Triangle] \\ & w = 180^{\circ} - 70^{\circ} = 110^{\circ} Co-interior Angle] \\ & x = 180^{\circ} - (70^{\circ} + 60^{\circ}) = 50^{\circ} \\ & [Angle sum property of Triangle] \\ & y = 180^{\circ} - (70^{\circ} + 60^{\circ}) = 50^{\circ} \\ & [Angle sum property of Triangle] \\ \hline 30. For Correct Scale \\ For Correct Plotting \\ & \hline & & \hline & & \hline & & \hline & & & & & & \hline & & & & & \hline & & & & & & & & \hline & & & & & & & & \hline & & & & & & & & \hline & & & & & & & & \hline & & & & & & & & \hline & & & & & & & & & \hline & & & & & & & & \hline & & & & & & & & & \hline & & & & & & & & \hline & & & & & & & & \hline & & & & & & & & \hline & & & & & & & & & \hline & & & & & & & & \hline & & & & & & & & \hline & & & & & & & & \hline & & & & & & & & & \hline & & & & & & & & & \hline & & & & & & & & & \hline & & & & & & & & & \hline & & & & & & & & & & \hline & & & & & & & & & \hline & & & & & & & & & \hline & & & & & & & & & \hline & & & & & & & & & & \hline & & & & & & & & & & \hline & & & & & & & & & & & & & \hline & & & & & & & & & & & & \hline & & & & & & & & & & \hline & & & & & & & & & & & \hline & & & & & & & & & & & \hline & & & & & & & & & & & & & \hline & & & & & & & & & & & \hline & & & & & & & & & & & \hline & & & & & & & & & & & \hline &$	29.	$\angle ABD = \angle ADB = x$				PAGE-171
$\begin{array}{ c c c c c c c c c c c c c c c c c c c$		$\angle ABD = \angle BDC = x$				
I Co-interior Angle] $2x + y = 180^{\circ}$ [Co-interior Angle] $y = 110^{\circ}$ IIOR $y = 180^{\circ} - 110^{\circ} = 70^{\circ}$ [Co-interior Angle] $x = 180^{\circ} - (70^{\circ} + 50^{\circ}) = 60^{\circ}$ [Angle sum property of Triangle]II $w = 180^{\circ} - 70^{\circ} = 110^{\circ}$ [Co-interior Angle] $x = x = 60^{\circ}$ [Corresponding Angle] $p = 180^{\circ} - (70^{\circ} + 60^{\circ}) = 50^{\circ}$ [Angle sum property of Triangle]II30. For Correct Scale For Correct PlottingII I		$\angle ADC = 2x$		[1]		
[Co-interior Angle] $2x + y = 180^{\circ}$ [Co-interior Angle] $y = 110^{\circ}$ [1]OR $y = 180^{\circ} - 110^{\circ} = 70^{\circ}$ [Co-interior Angle] $x = 180^{\circ} - (70^{\circ} + 50^{\circ}) = 60^{\circ}$ [Angle sum property of Triangle][3] $w = 180^{\circ} - 70^{\circ} = 110^{\circ}$ [Co-interior Angle] $x = x = 60^{\circ}$ [Corresponding Angle] $p = 180^{\circ} - (70^{\circ} + 60^{\circ}) = 50^{\circ}$ [Angle sum property of Triangle][4]30.For Correct Scale For Correct Plotting $[\frac{1}{2}]$ $\frac{1}{4}$ PAGE-218For Correct Plotting[1][3]PAGE-21831.560 Persons can complete the stadium in 9 months Let x Persons can complete the stadium in 5 months[1]Number of months 9 5 (γ) It is a case of inverse variation[1]		$x = 180^{\circ} - (90^{\circ} + 55^{\circ}) = 180^{\circ} - $	$145^\circ = 35^\circ$	[1]		
$y = 110^{\circ}$ [1] $0R$ [3] $y = 180^{\circ} - 110^{\circ} = 70^{\circ} Co-interior Angle][\frac{1}{2}]x = 180^{\circ} - (70^{\circ} + 50^{\circ}) = 60^{\circ}[\frac{1}{2}]w = 180^{\circ} - 70^{\circ} = 110^{\circ} Co-interior Angle][\frac{1}{2}]w = 180^{\circ} - 70^{\circ} = 110^{\circ} Co-interior Angle][\frac{1}{2}]x = x = 60^{\circ} Corresponding Angle][\frac{1}{2}]p = 180^{\circ} - (70^{\circ} + 60^{\circ}) = 50^{\circ}[\frac{1}{2}][Angle sum property of Triangle][\frac{1}{2}]Angle sum property of Triangle][1]angle sum property of triangle$		[Co-interior Angle]				
OR[3] $y = 180^{\circ} - 110^{\circ} = 70^{\circ}$ [Co-interior Angle] $[\frac{1}{2}]$ $x = 180^{\circ} - (70^{\circ} + 50^{\circ}) = 60^{\circ}$ $[\frac{1}{2}]$ $[Angle sum property of Triangle][\frac{1}{2}]w = 180^{\circ} - (70^{\circ} + 60^{\circ}) = 50^{\circ}[\frac{1}{2}]p = 180^{\circ} - (70^{\circ} + 60^{\circ}) = 50^{\circ}[1][Angle sum property of Triangle][\frac{1}{2}]p = 180^{\circ} - (70^{\circ} + 60^{\circ}) = 50^{\circ}[1][Angle sum property of Triangle][\frac{1}{2}][Angle sum property of Triangle][1][1][\frac{1}{2}][1][\frac{1}{2}][1][\frac{1}{2}][1][\frac{1}{2}][1][\frac{1}{2}][1][\frac{1}{2}][1][\frac{1}{2}][1][\frac{1}{2}][1][\frac{1}{2}][1][\frac{1}{2}][1][\frac{1}{2}][1][\frac{1}{2}][1][\frac{1}{2}][1][\frac{1}{2}][1][\frac{1}{2}]$		$2x + y = 180^{\circ}$ [Co-interior Angle	e]			
$y = 180^{\circ} - 110^{\circ} = 70^{\circ} [Co-interior Angle]$ $x = 180^{\circ} - (70^{\circ} + 50^{\circ}) = 60^{\circ}$ [Angle sum property of Triangle] $w = 180^{\circ} - 70^{\circ} = 110^{\circ} [Co-interior Angle]$ $z = x = 60^{\circ} [Corresponding Angle]$ $p = 180^{\circ} - (70^{\circ} + 60^{\circ}) = 50^{\circ}$ [Angle sum property of Triangle] $I_{1}^{\frac{1}{2}}$ I		$y = 110^{\circ}$	[1]			
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		OR			[3]	
Image: sum property of Triangle] $\begin{bmatrix} \frac{1}{2} \\ \frac{1}{2} \end{bmatrix}$ $w = 180^{\circ} - 70^{\circ} = 110^{\circ} [$ Co-interior Angle] $\begin{bmatrix} \frac{1}{2} \\ \frac{1}{2} \end{bmatrix}$ $z = x = 60^{\circ} [$ Corresponding Angle] $\begin{bmatrix} \frac{1}{2} \\ \frac{1}{2} \end{bmatrix}$ $p = 180^{\circ} - (70^{\circ} + 60^{\circ}) = 50^{\circ}$ $\begin{bmatrix} 1 \\ \frac{1}{2} \end{bmatrix}$ PAGE-218For Correct ScaleFor Correct PlottingImage: sum property of Triangle]Image: sum property of Triangle]		$y = 180^{\circ} - 110^{\circ} = 70^{\circ}$ [Co-interv	or Angle]	$\left[\frac{1}{2}\right]$		PAGE-178
$ \begin{array}{c c} w = 180^{\circ} - 70^{\circ} = 110^{\circ} [\text{ Co-interior Angle}] \\ z = x = 60^{\circ} [\text{ Corresponding Angle}] \\ p = 180^{\circ} - (70^{\circ} + 60^{\circ}) = 50^{\circ} \\ [\text{ Angle sum property of Triangle}] \\ \hline 30. \hline For Correct Scale \\ For Correct Plotting \\ \hline \\ $		$x = 180^{\circ} - (70^{\circ} + 50^{\circ}) = 60^{\circ}$				
$ \begin{array}{c c} z = x = 60^{\circ} \ [\text{ Corresponding Angle}] \\ p = 180^{\circ} - (70^{\circ} + 60^{\circ}) = 50^{\circ} \\ [\text{ Angle sum property of Triangle}] \end{array} \\ \hline \begin{array}{c} 30. \ For Correct Scale \\ For Correct Plotting \\ \hline \end{array} \\ \hline \begin{array}{c} 1 \\ \hline \end{array} \\ \hline \end{array} \\ \hline \begin{array}{c} 1 \\ \hline \end{array} \\ \hline \end{array} \\ \hline \end{array} \\ \hline \begin{array}{c} 1 \\ \hline \end{array} \\ \hline \end{array} \\ \hline \end{array} \\ \hline \begin{array}{c} 1 \\ \hline \end{array} \\ \hline \end{array} \\ \hline \end{array} \\ \hline \end{array} \\ \hline \begin{array}{c} 1 \\ \hline \end{array} \\ \hline \end{array} \\ \hline \end{array} \\ \hline \end{array} \\ \hline \begin{array}{c} 1 \\ \hline \end{array} \\ \hline \end{array} \\ \hline \end{array} \\ \hline \end{array} \\ \hline \begin{array}{c} 1 \\ \hline \end{array} \\ \hline \end{array} \\ \hline \end{array} \\ \hline \end{array} \\ \hline \begin{array}{c} 31. \ 560 \ Persons can complete the stadium in 9 months \\ Let x \ Persons can complete the stadium in 5 months \\ \hline \end{array} \\ \hline \end{array} \\ \hline \begin{array}{c} 1 \\ \hline \end{array} \\ \hline \end{array} \\ \hline \begin{array}{c} 1 \\ \hline \end{array} \\ \hline \begin{array}{c} 1 \\ \hline \end{array} $ \hline \end{array} \\ \hline \end{array} \\ \hline \end{array} \\ \hline \end{array} \\ \hline \end{array} \\ \hline \end{array} \\ \hline \end{array} \\ \hline \end{array} \\ \hline \end{array} \\ \hline \end{array} \\ \hline \end{array} \\ \hline \end{array} \\ \hline \bigg \\ \hline \bigg \\ \hline \end{array} \\ \hline \bigg \\ \\ \bigg \\ \hline \bigg \\ \\ \bigg \\ \\ \bigg \\ \\ \bigg \\ \bigg \\ \\ \bigg \\ \\ \bigg \\ \bigg \\ \bigg \\ \\ \bigg \\ \bigg		[Angle sum pro	perty of Triangle]	$\left[\frac{-}{2}\right]$		
Image: sum property of Triangle]PAGE-21830.For Correct Scale For Correct Plotting $\begin{bmatrix} \frac{1}{2} \\ 1 \\ \frac{1}{2} \end{bmatrix}$ PAGE-218Image: sum property of Triangle and the station of the static of t		$w = 180^{\circ} - 70^{\circ} = 110^{\circ}$ [Co-inter	ior Angle]	$\left[\frac{1}{2}\right]$		
Image: sum property of Triangle]PAGE-21830.For Correct Scale For Correct Plotting $\begin{bmatrix} \frac{1}{2} \\ 1 \\ \frac{1}{2} \end{bmatrix}$ PAGE-218Image: sum property of Triangle and the station of the static of t		$z = x = 60^{\circ}$ [Corresponding Angle	le]	$\begin{bmatrix} 1\\ - \end{bmatrix}$		
30. For Correct Scale $[\frac{1}{2}]$ PAGE-218 For Correct Plotting $[1, \frac{1}{2}]$ $[1, \frac{1}{2}]$ $[3]$ $a = \frac{1}{2}$ $a = \frac{1}{2}$ $[3]$ $[3]$ ABCD is a rectangle $[1]$ $[1]$ $[1]$ 31. 560 Persons can complete the stadium in 9 months $[1]$ $[1]$ $[5]$ Number of persons $\frac{560}{(x)}$ x $[1]$ $[5]$ Number of persons 560 x $[1]$ $[1]$ $[5]$ $[1]$ $[1]$		$p = 180^{\circ} - (70^{\circ} + 60^{\circ}) = 50^{\circ}$		[1]		
$\begin{bmatrix} 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 $		[Angle sum property of T	riangle]			
$\begin{bmatrix} 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 $	30.	For Correct Scale	$\left[\frac{1}{2}\right]$		PAGE-218	
Image: second systemImage: second system <t< th=""><th></th><th>For Correct Plotting</th><th></th><th>$[1\frac{1}{2}]$</th><th></th><th></th></t<>		For Correct Plotting		$[1\frac{1}{2}]$		
Image: second systemImage: second system <t< th=""><th></th><th colspan="2" rowspan="2"></th><th></th><th></th><th></th></t<>						
Image: second systemImage: second system <t< th=""><th></th><th></th><th></th><th></th></t<>						
Image: second systemImage: second system <t< th=""><th></th><th>6 D = (2, 5)</th><th>C = (5, 5)</th><th></th><th></th><th></th></t<>		6 D = (2, 5)	C = (5, 5)			
$\begin{bmatrix} 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 $		5	1			
Image: Image of the second			B = (5, 3)		[3]	
ABCD is a rectangle[1]31.560 Persons can complete the stadium in 9 months Let x Persons can complete the stadium in 5 monthsPAGE-59 $\frac{Number of}{persons} 560 x}{(x)}$ Number of y months[1][5]It is a case of inverse variation[1]		2	n			
ABCD is a rectangle[1]31.560 Persons can complete the stadium in 9 months Let x Persons can complete the stadium in 5 monthsPAGE-59 $\frac{Number of}{persons} 560 x}{(x)}$ Number of y months[1][5]It is a case of inverse variation[1]						
31. 560 Persons can complete the stadium in 9 months Let x Persons can complete the stadium in 5 monthsPAGE-59 $\boxed{\text{Number of } \\ \text{persons } 560 \\ (x) \\ \text{Number of } 9 \\ (y) \\ \text{It is a case of inverse variation} $ [1][5]		-4 -3 -2 -1 0 1 2 3	4 5 6 7			
31. 560 Persons can complete the stadium in 9 months Let x Persons can complete the stadium in 5 monthsPAGE-59 $\boxed{\text{Number of } \\ \text{persons } 560 \\ (x) \\ \text{Number of } 9 \\ (y) \\ \text{It is a case of inverse variation} $ [1][5]		-1				
31. 560 Persons can complete the stadium in 9 months Let x Persons can complete the stadium in 5 monthsPAGE-59Number of persons x [1][5]Number of months 9 5 [1]It is a case of inverse variation[1]		ABCD is a rectangle		[1]		
Let x Persons can complete the stadium in 5 months[1] $\boxed{\text{Number of}}$ persons560x (x) [1]Number of months9 (y) 5It is a case of inverse variation[1]	31.		1m in 9 months			PAGE-59
persons 560 x $[1]$ $[5]$ Number of months95 $[1]$ $[5]$ It is a case of inverse variation $[1]$ $[1]$ $[1]$						
(x) $[1]$ Number of months9 (y) 5 (y) $[1]$ It is a case of inverse variation $[1]$						
Number of months 9 5 (y) It is a case of inverse variation [1]		1	x	[1]		
(y) It is a case of inverse variation [1]		Number of		[*]	[5]	
It is a case of inverse variation [1]			5			
$560 \times 9 = x \times 5 $						
		$560 \times 9 = x \times 5$	[1]			

	$\Rightarrow x = \frac{560 \times 9}{5} = 1008$ Number of extra persons = 1008 - 560 = 448	[2] [1]		
	OR			
	500 students can accommodate for 30 days			
	100 students joined after 6 days	[1]		
	500 students can accommodate for 24 days			
	Let 600 students can accommodate for y days	[1]		
	Number of students500600(x)500600	[1]		
	Number of days24y(y)			
	It is a case of inverse variation 500×24 (00 × 300)	[1]		
	$500 \times 24 = 600 \times y$ 500×24	[1]		
	$\Rightarrow y = \frac{500 \times 24}{600} = 20 \ days$	[1]		
32.	SP of First Jean = $Rs.990$			PAGE-71
	% Gain= 10%			
	CP of First Jean = $\frac{SP \times 100}{100 + \% Gain} = \frac{990 \times 100}{100 + 10} = Rs.900$	[1]		
	SP of First Jean = $Rs.990$			
	% Loss= 10%		[7]	
	CP of First Jean= $\frac{SP \times 100}{100 - \% Loss} = \frac{990 \times 100}{100 - 10} = Rs. 1100$	[1]	[5]	
	Total $CP = 900 + 1100 = Rs.2000$	[1]		
	Total $SP = 990 + 990 = Rs. 1980$			
	Loss = 2000 - 1980 = Rs. 20	[1]		
	$\% \text{Loss} = \frac{20}{2000} \times 100 = 1\%$	[1]		
33.	$a^{2} + \frac{1}{a^{2}} = \left(a + \frac{1}{a}\right)^{2} - 2 \times a \times \frac{1}{a} = \left(\frac{17}{4}\right)^{2} - 2$ $= \frac{289}{16} - 2 = \frac{257}{16}$	[2]		PAGE-125
	$\left(a - \frac{1}{a}\right)^2 = a^2 + \frac{1}{a^2} - 2 \times a \times \frac{1}{a} = \frac{257}{16} - 2 = \frac{225}{16}$	[2]	[5]	
	$\Rightarrow \left(a - \frac{1}{a}\right) = \sqrt{\frac{225}{16}} = 15/4$	[1]		
	N.B: Anyone can also use identity of 4 <i>ab</i>			



circumference of the base the cylinder and length become			
the length of the cylinder.			
So, length cylinder= $h = 33 \ cm$	[1]		
Base perimeter = $32 cm$			
$2\pi r = 32 \ cm$			
radius, $r = \frac{16}{\pi}$ cm	[1]		
Volume of cylinder = $\pi r^2 h$			
$=\pi \times \frac{16}{\pi} \times \frac{16}{\pi} \times 33$			
$=\frac{16\times16\times33\times7}{22}$			
$= 2688 \ cm^3$	[1]		
$1 \ litre = 1000 \ cm^3$			
Capacity $=\frac{2688}{1000} = 2.688$ <i>litre</i>	[1]		
	[1]	1	