

Schedule for CAT Year 9 Exam 2020

AT = 40% - 60%

ABOVE = 61% - 84%

BEYOND = +85%

Number

Total	AT(3/4points)	ABOVE(5/6points)	BEYOND(7/8points)
Q1			
(a)	90x7=630. He can make 630 naan bread in 1 week.		
(b)	Amount paid per day = 135 /3 = \$45 per day		
(c)		Amount paid per day is \$45 divided by 4 (4pm to 8pm) Hourly rate is 11.25 Now working from noon to 8 pm = 8 hours 11.25 x 8 =\$90 3 days of work per week = 90x 3 days x 2 weeks = \$540	
(d)		Amount of time required is % x 55 =22 minutes It takes 22 minutes to cook and prepare Papadum	V n q

(e)		Rogan Josh : Butter Chicken 4:5 Number of butter chicken $5/(4+5) \times 450$ Or $5/9 \times 450 = 250$ butter chicken dishes were sold	
(f)		Total amount of chicken packets = $500g \times 6 = 3000g$ Number of required servings = $3000/125g = 24$ He can make 24 serving of butter chicken	
Q2			
(a)	$35/100 = 7/20$ (Needs to be fully simplified for A4 or A3 with $35/100$)		
(b)	$35/100 \times \$135 = \47.25		
(c)		Heena saves \$47.25 To save \$1500, she will take $1500/47.25 = 31.746 = 32$ weeks (needs to round up to 32 weeks for full marks)	
(d)			Mount of interest per year 2% $= 2/100 \times \$800 = \16 per year For two years $16 \times 2 = 32$ Total value of savings accounts = $800 + 32 = \$832$ (must be shown)
Q3	At	Above	Beyond


(a)	0.96kg, 1.01kg, 1.06kg, 1.07kg, 1.1kg, 1.14kg		
(b)	Total weight 6.34kg correctly rounded = 6 kg		
Q4			
(a)			
(i)	-40		
(ii)	6		
(iii)	$33 + (-10) = 23$		
(iv)		-27	
(v)		$10 + 20 + 4 = 34$	
(B)		Final required temperature $-16c^0 + 4c^0$ $= -12c^0$	
Q5			
(a)		Total required cups of water = $1 \frac{1}{2} \times 3 =$ $\frac{3}{2} \times 3 = \frac{9}{2} = 4.5$	
(b)		Total $20 / 1 \frac{1}{2} = 20 / \frac{3}{2} =$ $13.33 =$ round down 13 naan bread	
(c)			If 1 cup flour = 0.12 kg , $3 \frac{1}{2}$ cups(Given in the recipe) = $0.12 \times 3.5 = 0.42$ kg Therefore one Naan bread needs 0.42 kg of flour 50 naan bread will require $0.42 \times 50 = 21$ kg of flour therefor e 20 kg flour will not be enough for 50 naan breads 9 Correct units and rounding required for full marks)

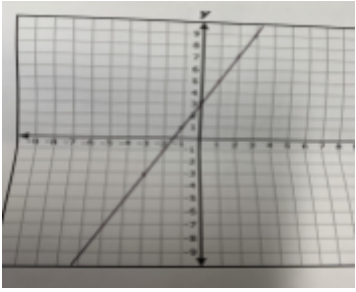
Q6			
			<p>1. Contribution from Foursquare = $\frac{8}{100} \times \\$6000 = \\480</p> <p>2. Contribution from Home and School Association $\frac{1}{12} \times \\$6000 = \\500</p> <p>3. Contribution from Lion Foundation \$1100 (total 2080)</p> <p>Therefore amount required to fund raise = $\\$6000 - (480 + 500 + 1100) = \\3920</p> <p>$\\$6000 - 2080$</p> <p>Profit made from each meal $\\$8 - \\2 (Cost by Ajya) = \$6</p> <p>Number of meals required $\frac{\\$3920}{\\$6} = 653.33$ that means 654 meals</p> <p>Team needs to sell 654 meals to raise \$6000 for the cost of the trip.</p>

Algebra and Patterns

Q1			
(a)	$5x + 6y$		
(b)	$22w$		
(c)	$5w - 7z$		
(d)	w^4		
(e)		$x^{7-5} = x^2$	
(f)		$15x^2$	
(g)		$24y^8$	

Q2			
(a)		$2(3)+3(7)$ $= 6+21$ $=27$	
(b)		$\pi r^2=\pi(6^2)$ $=113.0973$ or 113.10	
Q3			
(a)	$5x-10$		
(b)	$2y^2+6y$		
(c)		$18x-12+8x-18$ $=26x-30$	
Q4			
(a)	$36/4=9$ $x=9$		
(b)		$5x + 2 = 32(32-2)$ $5x=30 (30/5)$ $x=6$	
(c)		$2(y - 6) = 18$ $2y =18+12=30$ $y =30/2=15$	
(d)		$4x + 3 = x - 9$ $3x=-12$ $x=-12/3 =-4$	
Q5			

(a)			C = cost and d = day $c=45.99d+65$														
(b)		$45.99(5)+65= \$294.95$															
(c)			$45.99d+65= 478.91$ $45.99d= 478.91-65 (413.91)$ $d=413.91/45.99=9$ Susan hired the car for 9 days														
Q6																	
(a)	$6x + 48= 6(x+8)$																
(b)	$3y^3 - 48y = 3y(y^2-16)$																
(c)	$5x^6y - 65x^3y^2 =$ $5x^3y(x^3-13y)$																
Q7																	
(a)																	
(b)	<table border="1" data-bbox="573 1008 936 1098"> <tr> <td>PN</td> <td>1</td> <td>2</td> <td>3</td> <td>4</td> <td>5</td> <td>6</td> </tr> <tr> <td>N</td> <td>3</td> <td>6</td> <td>9</td> <td>12</td> <td>15</td> <td>18</td> </tr> </table>	PN	1	2	3	4	5	6	N	3	6	9	12	15	18		
PN	1	2	3	4	5	6											
N	3	6	9	12	15	18											
(c)		$T=3p$															
(d)		$t=3(20)=60.$															
(e)		$111=3p$ $p=37$															

		Pattern no 37	
Q8			
(a)			
(b)		$y=2x+3$	
Q9			
(a)			$y= 2x-50$
(b)		$y=2x-50$ $= 2(30)-50$ $=10$ Profit made was \$10	

Strand	AT (4)	ABOVE (6)	BEYOND (8)	Total
Number	$9 \times 4 = 36$	$10 \times 6 = 60$	$3 \times 8 = 24$	120
Algebra	$13 \times 4 = 52$	$15 \times 6 = 90$	$3 \times 8 = 24$	166

Grand Total	88	150	48	286
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Percentage grade boundaries for overall grade:

<i>Percentage</i>	<i>Points</i>
AT = 40% - 60%	114-171
ABOVE = 61% - 84%	172-240
BEYOND = +85% ≥	241 -

Number AT 48 - 72 ABOVE 73 - 100 BEYOND 101+

Algebra AT 66 - 99 ABOVE 100 - 139 BEYOND 140+