FIRST TERM EVALUATION 2022 -2023
MATHEMATICS

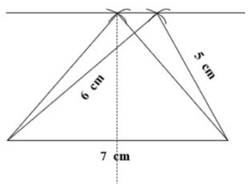
3 Questions from1 to 4

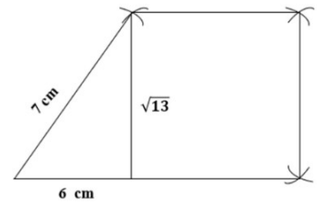
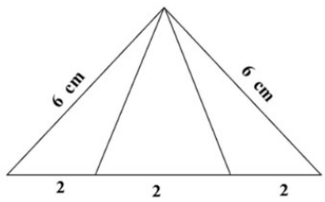
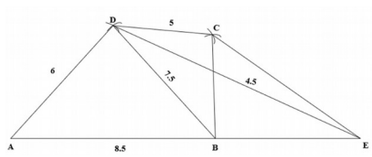
1	(a) 60 cm²	1	2	(a) $\frac{52}{100}$	1
	(b) 30cm²	1		(b) 0.52	1
3	Large number = $\frac{36+4}{2}$ = $\frac{40}{2}$ = 20	1 1	4	(a) 5 cm² (b) $\sqrt{5}$ cm	1 1

4 Questions from 5 to 10

5	(a) ΔPQC (b) ΔBCP,ΔBCQ and ΔPRC,ΔQRB	1 2	6	(a) 3:4:5 (b) 30 cm² (c) 40 + 50 = 90 cm²	1 1 1
7	(a) $\frac{4}{9}$ (b) $\sqrt{0.444..}$ = $\sqrt{\frac{4}{9}}$ = $\frac{2}{3}$ = $\frac{6}{9}$ = 0.666.....	1 1 1	8	(a) Number = (74 - 24) ÷ 2 = 25 (b) Price of one bottle of sanitizer = x Price of one mask = y 2x + 3y = 74 2x + 5y = 94 2y = 94 - 74 y = 10 Price of one mask = 10 Rs	1 1 1
9	(a) $\sqrt{6}$ cm (b) (1 + $\sqrt{5}$ + $\sqrt{6}$) cm	1 2	10	(a) AM = 4 cm (b) OM = $\sqrt{5^2-4^2}$ = 3 cm	1 2

8 Questions from 11 to 21

11		3	12	(a) AB: AC = 8 : 10 = 4 : 5 BD : DC = 4 : 5 (c) 180 × $\frac{4}{9}$ = 80 cm²	1 1 2
13	(a) $\frac{33}{100}$, $\frac{333}{1000}$, $\frac{3333}{10000}$ (b) 0.3333.....	3 1	14	0.5 + 0.04 = 0.54 0.54 + 0.125 = 0.665 $\frac{5}{10}$ + $\frac{4}{100}$ + $\frac{125}{1000}$ + $\frac{16}{10000}$ 0.665 + 0.0016 =0.6666	1 1 1 1
15	Number of 100 Rupee notes = x Number of 200 Rupees = y x + y = 35 100x + 200 y = 5000 x + 2y = 50 y = 50 - 35 = 15 x = 20 Number of 100 Rupees = 20 Number of 200 Rupees = 15	 1 1 1	16	Price of one kilogram orange = x Price of One kilogram apple = y 3x + 2y = 400 2x + 3y = 450 9x + 6y = 1200 4x + 6y = 900 9x - 4x = 1200 - 900 x = 60, y = 110 Price of one kilogram orange and apple = 60 Rs,110Rs	 1 1 1 1

	17	(a) 29 or 38 or 47 or 56 or 65 or 74 or 83 or 92 (b) Unit place = x Tenth place = y x+ y = 11 10x + y = 10y + x - 27 x - y = -3 2x = 11 + -3 x = 4 Number = 74	1 1 1 1	18	(a) AC = $\sqrt{3^2+2^2}$ = $\sqrt{13}$ (b) 	1 3
	19	(a) 2 (b) $\frac{18}{10}$, $\frac{21}{10}$, $\frac{24}{10}$	1 3	20	(a) y^2 (b) $\sqrt{2^2 - 1^2} = 2 - 1 = 1$ (c) $\sqrt{2} - 1 = 1.414 - 1 = 0.41$	1 1 2
	21		4			
6 Questions from 22 to 29	22		5	23	(a) 30 cm^2 (b) Area of Δ ABP = 20 cm^2 Area of Δ BPQ = 10 cm^2 (c) 10 + 10 = 20 cm^2	1 1 1 2
	24	(a) 10 cm^2 (b) 20 :10 = 2:1 (c) Area of Δ CMD = 5 cm^2 Area of trapezium ABCD = 20 + 10 + 10 + 5 = 45 cm^2	1 1 1 2	25	(a) 0.125 (b) 0.625 (c) $3 + \frac{5}{8} = \frac{29}{8} = \frac{58}{16}$	1 1 3
	26	Side of large square = x Side of small square = y x - y = 5 $x^2 - y^2 = 55$ (x + y) (x - y) = 55 x + y = 55 ÷ 5 x + y = 11 2x = 11 + 5 x = 8, y = 3 Side of large square = 8 cm Side of small square = 3 cm	 1 1 1 2	27	(a) Perimeter = 2(√8 + √2) = 2(2√2 + √2) cm = 2× 3√2 = 6√2 cm (b) √8 × √2 = √16 = 4 cm^2 (c) $\sqrt{(\sqrt{8})^2+(\sqrt{2})^2}$ = $\sqrt{10}$ cm	1 1 1 2
	28	(a) 1 m (b) $\sqrt{3^2}$ = 3 m^2 (c) √3 m (d) √3 m^2	1 1 1 2	29	(a) 30 (b) 300 (c) 20 (d) x + 2 (e) 70	1 1 1 1 1