

(a) 1, 3, 5 (b) 1, 2, 5

(c) 1, 2, 3 (d) 1, 3, 7

2. 1, 1/2, 1/3..... is a sequence. Find the  $n^{th}$  term of the sequence.

(a) 1/n

(c) 2n-1

(b) 2n+1

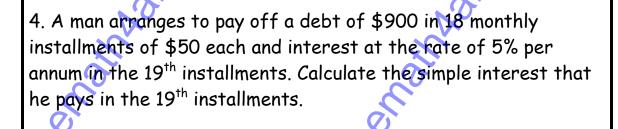
(d) n-1

3. If (p+1)<sup>th</sup> term of an A.P is twice (q+1)<sup>th</sup> term, then (3p+1)<sup>th</sup> term is

(a) 2t<sub>(p+q)</sub>

(b) 2t<sub>(p+1)</sub>

William Collinson



(a) \$62.63

(c) \$13.63

(b) \$35.63

(d) \$85.63

5. Solve for "x": 1+6+11+16+.....+x = 148

(a) 26

(c) 46

(b) 36

(d) 56

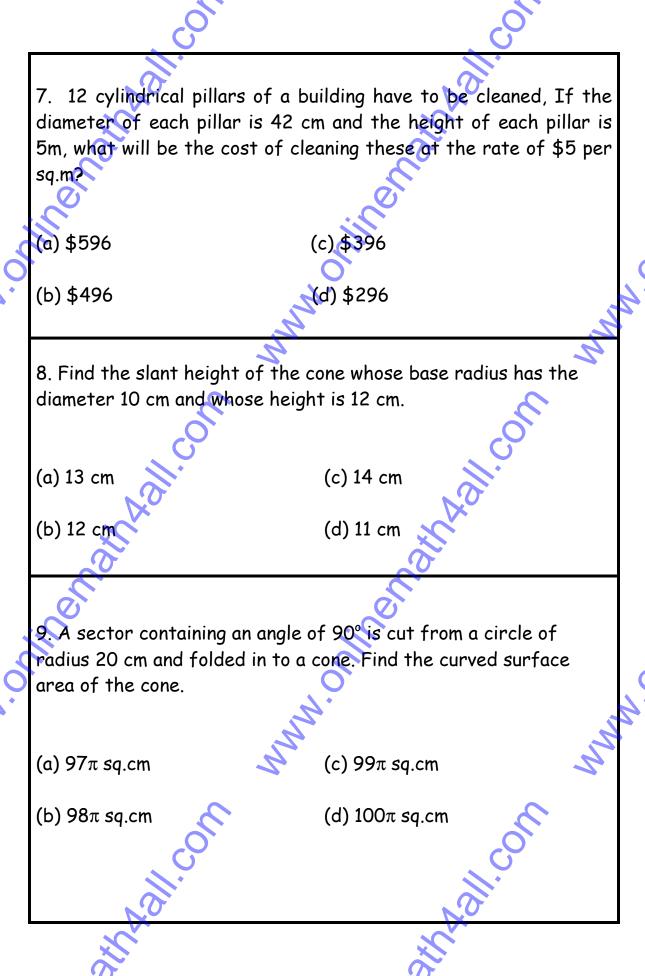
6. 10 potatoes are planted in straight line on the ground. The distance between any two consecutive potatoes is 10 meters. How far must a person travel to bring them one by one to a basket placed 10 meters behind the first potato.

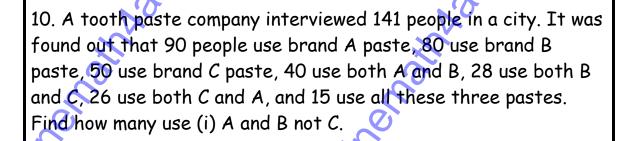
(a) 1800

(c) 1900

(b) 1100

(d) 1200





(a) 10

(c) 25

(b) 29

(d)7

11. Given  $A = \{1, 2, 3\}$  and  $B=\{4, 5\}$ , then which of the following elements belong to  $A \times B$ ?

(a) {6, 1}

(c) {1, 5}

(b) {2, 7}

(d) {4, 6}

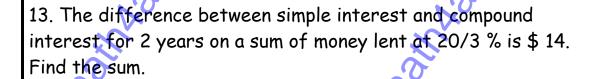
12. Let  $f:A \rightarrow B$ , where  $A = \{1,2\}$  and (x) = x-1. Write the elements of B.

 $(a) \{0, 1\}$ 

(c) {8, 5}

(b) {5, 7}

 $(d) \{3, 6\}$ 



(a) \$3050

(c) \$3200

(b) \$3150

(d) \$3250

14. A person opens recurring deposit account paying \$150 per month for 3 years. If the rate of interest is 12%, what is the amount of interest he gets at the end?

(a) 555

(c) 999

(b) 888

(d) 666

(a) 
$$x = 3$$
,  $y = 1$ ,  $z = 2$ 

(c) 
$$x = -1$$
,  $y = 2$ ,  $z = 3$   
(d)  $x = 1$ ,  $y = 2$ ,  $z = 2$ 

(b) 
$$x = -3$$
,  $y = 2$ ,  $z = 1$ 

16. Sum of three numbers is 10. Sum of the first number, twice the second number and three times the third number is 19 and the sum of first, four times the second and nine times the third is 43. Find the numbers.

(a) 4, 3, 2

(b) 4, 4, 1

(d) 4, 3, 3

17. Find the remainder when the polynomial  $p(x) = x^4 - 3x^2 + 2x + 1$  is divided by x-1.

(a) 1

(c) 3

(b) 2

(d)4

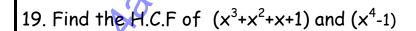
18. If  $ax^3+bx^2+x-6$  has (x+2) as a factor and leaves a remainder 4 when divided by (x-2), find the values of "a" and "b".

(a) 
$$a = 2, b = 3$$

(d) 
$$a = 0, b = -2$$

(b) 
$$a = 0$$
,  $b = 2$ 

(d) 
$$a = 0$$
,  $b = -2$ 



(a) 
$$(x-1)(x^2+1)$$

(c) 
$$(x+1)(x^2-1)$$
  
(d)  $(x+1)(x^2+1)$ 

(b) 
$$(x-1)(x^2-1)$$

(d) 
$$(x+1)(x^2+1)$$

20. Find the L.C.M of  $2(x^3+x^2-x^2)$  and  $3(x^3+3x^2-x-3)$ 

(a) 
$$6(x^2+1)(x+1)(x+3)$$

(c) 
$$6(x^2+1)(x+1)(x-3)$$

(b) 
$$6(x^2-1)(x+1)(x+3)$$

(d) 
$$6(x^2+1)(x-1)(x+3)$$

21. Find the square root of  $(x^4-10x^3+37x^2-60x+36)$ 

(a) 
$$x^2+24x-5=0$$

(c) 
$$x^2-5x+6$$

(d) 
$$x^2-6x+2=0$$

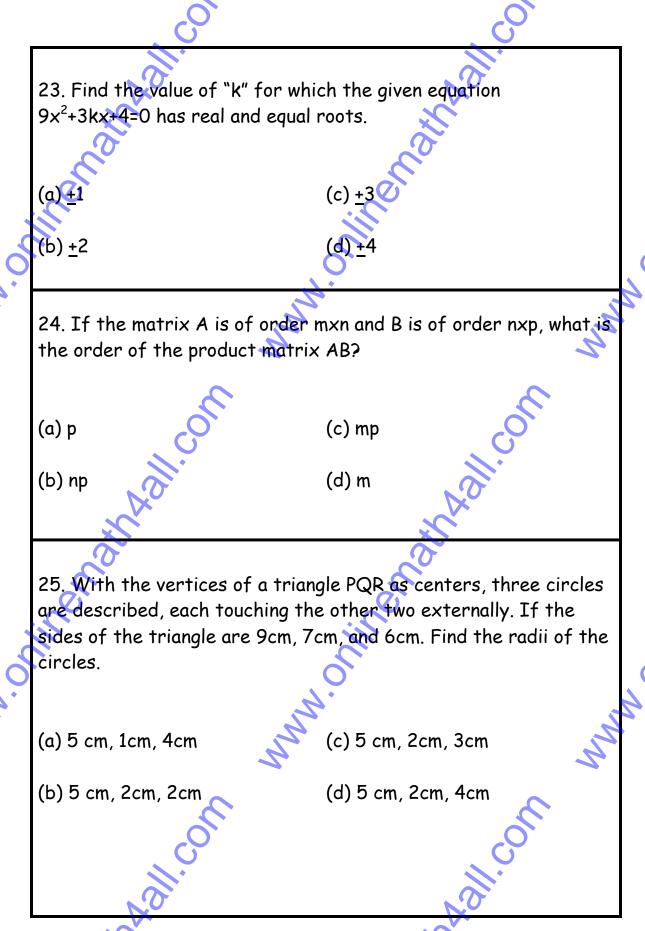
22. A train covers a distance of 90 km at a uniform speed. Had the speed been 15 km/hr more, it would have taken 30 minutes less for the journey. Find the original speed of the train.

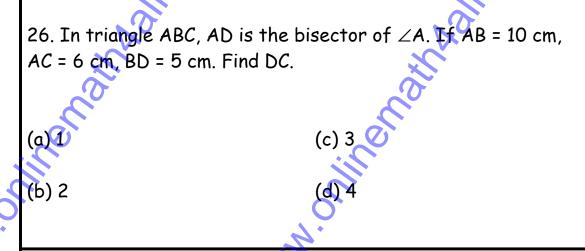
(a) 45 km/hr

(c) 36 km/hr

(b) 38 km/hm

(d) 21 km/hr





(a)1

MANNING OF 27. Determine the value of 3 such that (a, a), (2, 3) and (4, -1)are collinear.

(a) 7/3

(c) 7/5

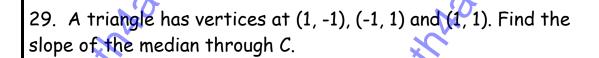
(b) 7/9

(d) 7/11

28. Find the slope of the line, given that it makes  $60^{\circ}$  with x-axis.

(a) √5

(b) √2



(a)1

(c) 5

b) 2

(d)4

30. Find the equation of the line which passes through the point (3, 4) and make intercepts on the axes such that their sum is 14.

(a) 
$$x + y - 7 = 0$$
 (or)  $4x + 3y - 24 = 0$ 

(b) 
$$x + y + 7 = 0$$
 (or)  $4x + 3y + 24 = 0$ 

(c) 
$$x + y + 7 = 0$$
 (or)  $4x - 3y - 24 = 0$ 

(d) 
$$x - y - 7 = 0$$
 (or)  $4x + 3y + 24 = 0$ 

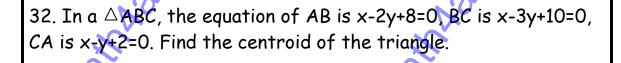
31. Find the value of "a" so that 3x+y=2, 5x+2y=3 and ax-y=3 are concurrent.

(a) 1

(c) 3

(b) 2

(d)4



(a)(2/3,4)

(c)(1/3/7)

(b) (5/3, 9)

(d) (5/3, 7)

33. Find the value:  $sec\theta(1-sin\theta)(sec\theta+tan\theta)$ .

(a) 1

(c) 3

(b) 2

(d)4

34. SinAcosB + cosAsinB =

(a) sin(A-B)

(c) cos(A+B)

(b) cos(A-B)

(d) sin(A+B)

35. Find the length of a side of a regular polygon inscribed in a circle of radius 1 m if it has 24 sides.

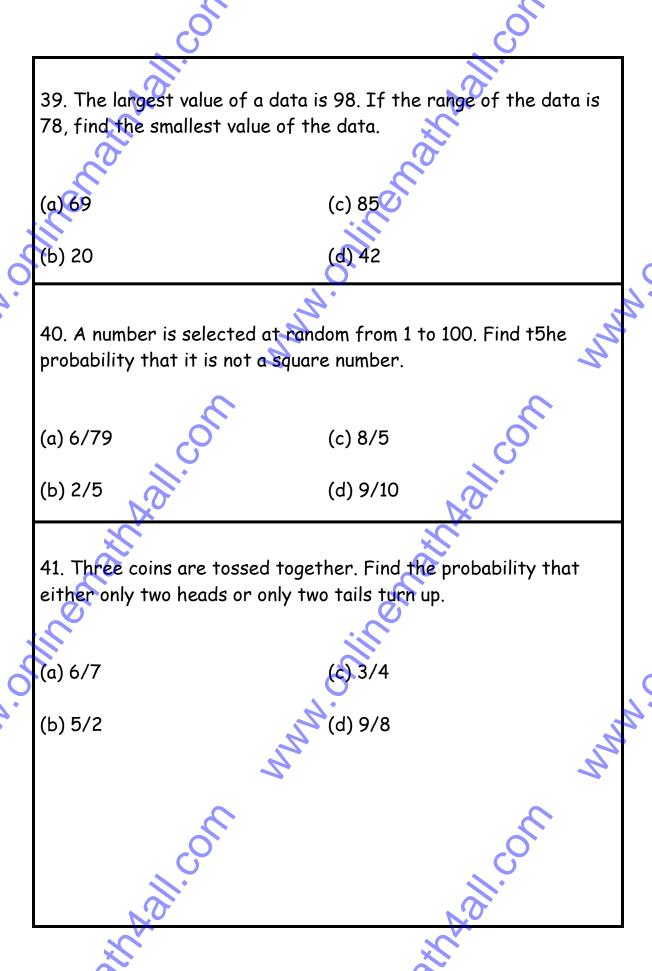
(a) 46.1

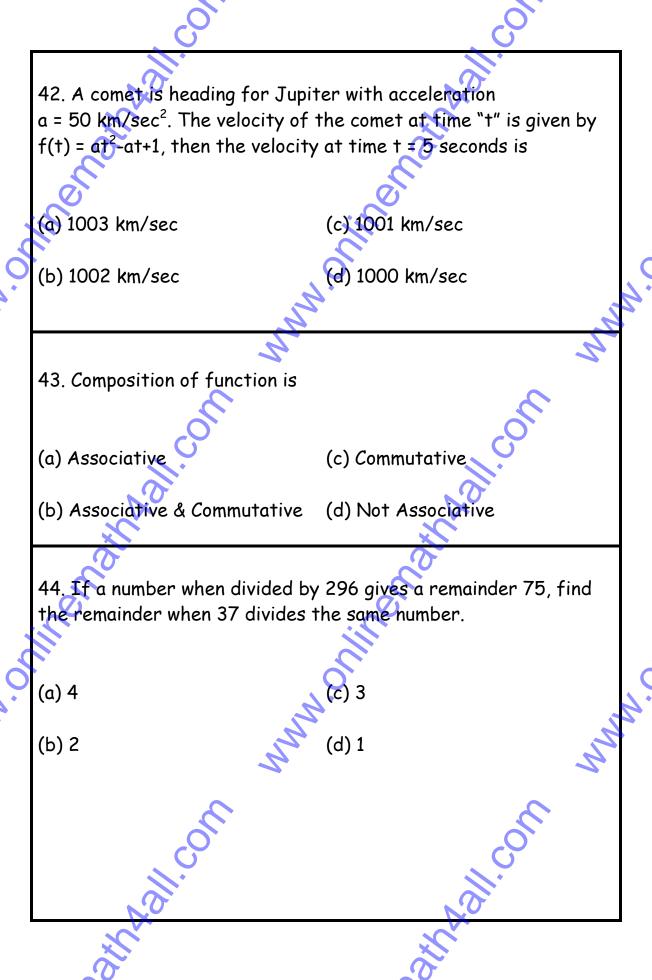
(c) 26.1

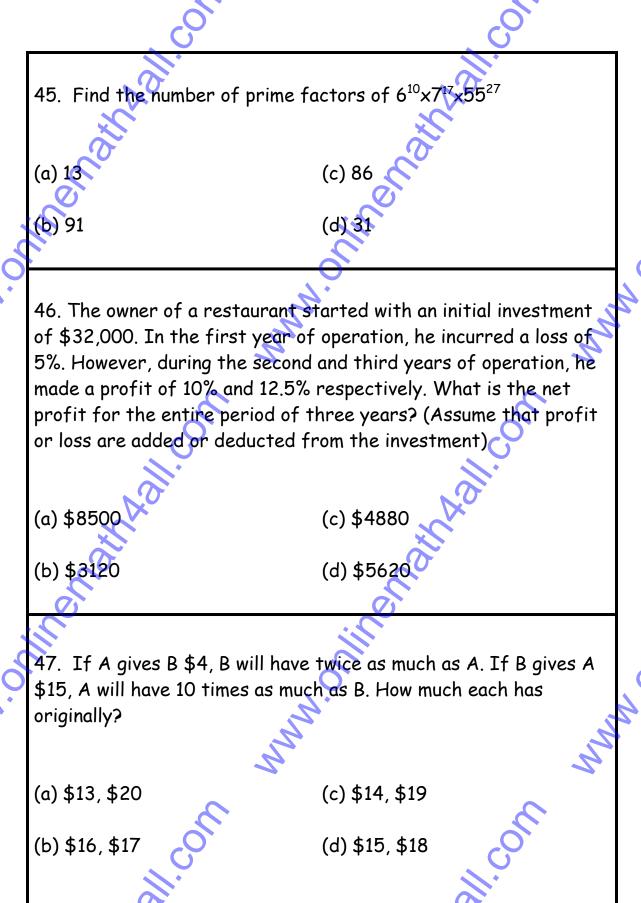
(b) 36.1

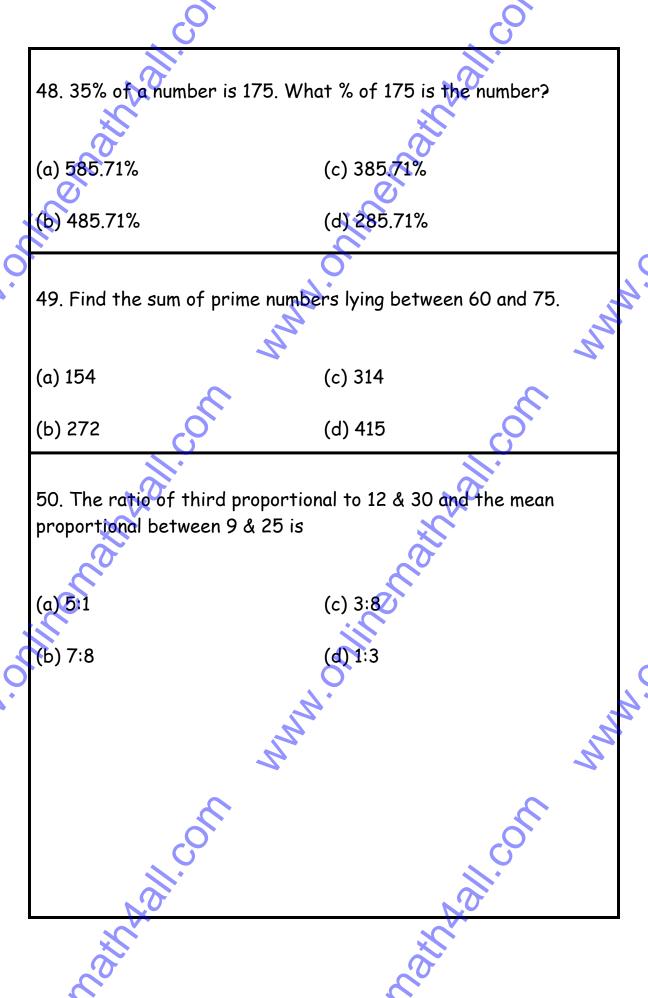
(d) 16.1

	36. From a cliff 150 m above the shore line the angle of depression of a ship is 19°30′. Find the distance from the ship to a point on the shore directly below the observer.					
	(a) 423.59 m (c) 426.59 m	Cilifold				
MAN, O.	(b) 436.16 m  (d) 416.16 m  37. A circle has radius 2cm. P is a point at a distance of 4.5 cm					
	from its center. From P two tangents are drawn to the circle (Using the centre). Calculate the lengths of the tangents.					
	(a) 8.03 cm (c) 6.03 cm					
	(b) 4.03 cm (d) 9.03 cm					
	38. The scores of a cricketer in 7 matches are 70, 80, 60, 50, 40, 90, 95. Find the standard deviation.	A. CHINGS				
ANN O.	(a) 48.98 (b) 18.98 (d) 58.98	7.				
N	(a) 30.70					
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	and the second s					









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	Answers	Molli			XX	•	
	1. d	2. a	3. c	4. b	5. b 11. c 17. a 23. d	6. b	
	7. c	8. a	9. d	10. c	11. c	12. a	TAIN OF THE PARTY
Muh.	13. b	14. c	15. a.s.	16. d	17. a	18. b	
	10 4	20. b	21. c	22. α	23. d	24. c	
	25. d	26. c	27. α	28. c	29. 0	30. a	
	31. b	32. a	33. а	34. d	<b>3</b> 5. c	36. a	
Muly	<b>37</b> . b	38. b	39. b	40. d	35. c 41. c 47. d	42. c	M. Clinos
ZZZZ,	43. α	44. d	45. b	46. d	47. d	48. d	
7	49. b	50. a					2
		50. a					
	NOX.						