

# TOP EDUCATIONAL INSTITUTE

MATHEMATICS

YEAR 9

BRITISH FIRST TERM

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1. Find

a)  $7+2\times(4-3)$

b)  $(16\div 2+4)\div(3\times 4\div 2)$

c)  $(10\times 3-20)+3(9\div 3+2)$

2. Write down the next two number in the sequence.

a) 5, 10, 17, 26..., ...

b) -24, -18, -13..., ...

c) 720, 120, 24, 6, ..., ...

3. Find

a)  $2\frac{2}{5} - \frac{6}{7} \div \frac{5}{14}$

b)  $\frac{1}{6} \times (\frac{3}{2} - \frac{1}{2}) \div \frac{7}{12}$

4. Arrange in ascending order.

1.) 0.123, 1.23, 0.0123, 12.3

2.)  $\frac{1}{4}$ , 0.75,  $\frac{1}{8}$ , 0.5

5. Find the total cost of Rs. 5.60, Rs 5.60, Rs.10, Rs.2.92

6. How many pieces of ribbon of length 0.3m can be cut from a piece 7.5m long?

7. Give  $\frac{2}{11}$  as a recurring decimal.

8. Express as fractions in their lowest terms.

i. 30%

ii.  $2\frac{1}{2}\%$

9. Express percentages as decimals.

i. 69%

ii.  $18\frac{1}{2}\%$

10. Express fractions as percentages.

i.  $\frac{3}{8}$

ii.  $\frac{99}{100}$

11. Express decimals as percentages

i. 0.61

ii. 0.035

12. Express the first quantity as a percentage of the second

i. 6 mm, 5 cm

ii. £ 5.40, 81p

13. Find the value of

i. 17% of 300 ml

vii.  $2\frac{1}{3}\%$  of 90 g

14. Increase 400 by 27%

15. A shop keeper buys 80 articles for \$200 and sells them for \$3.50 each. What is the percentage profit?

16. Here are 06 numbers. 49,  $\pi$ , 6, 27, 21, 31. write down a

prime number

.....

irrational number

.....

square number

.....

triangular number

.....

cube number

.....

17. Write 600 as a product of powers of its prime factors. Show your working clearly.

18. Write these recurring decimals as fractions.

1.) 0.63

2.) 0.045

3.) 0.318

19. Find LCM of

1.) 10, 30, 210

2.) 7, 13, 182

20. Find HCF of

1.) 120, 40, 60

2.) 10, 18, 20, 36