



# K Education Centre



## GCSE Maths - Foundation

Exam Preparation

Assignment Questions

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Year 2023

Q1 : Write next 5 multiples of 9

18 , 27 , 36 , ..... , ..... , ..... , ..... , .....

Q2: Write 100 as product of its prime factors.

Q3: Find the LCM and HCF of 12 and 22

Q4: Work out :

a)  $8^3$

b)  $\sqrt{81}$

c)  $\sqrt[3]{125}$  d)  $\sqrt[3]{-27}$

Q5: Write the following in index form :

a)  $6^3 \times 6^4$

b)  $96 \times 9^5$  c)  $7^8 \div 7^3$

d)  $y^5 \div y^3$

e)  $x^{20} \div x^{16}$

Q6: Rewrite the following expression without indices :

a)  $12^0$

b)  $16^{-1}$

c)  $\left(\frac{2}{3}\right)^{-3}$

Q7: Simplify the following :

a)  $\frac{5^7}{5 \times 5^2}$

b)  $\frac{3^3 \times 3^4}{3^2 \times 3^{-4}}$

Q8: Work out:

a)  $\frac{3}{4}$  of 160 km

b)  $\frac{2}{5}$  of £ 45

Q9: Thomas 24 boxes of melons each costing £9 . Each box contains 12 melons. He sold  $\frac{2}{3}$  Melons for £1.20 each , then he sold remaining melons for £0.90 each. How much profit Thomas make that day ?

Q10 : Work out :

a)  $\frac{1}{3} \times \frac{1}{5}$

b)  $\frac{5}{8} \div \frac{15}{16}$

Q11: Calculate the volume and surface area of cylinder with radius of 8.5 cm and height 10 cm.

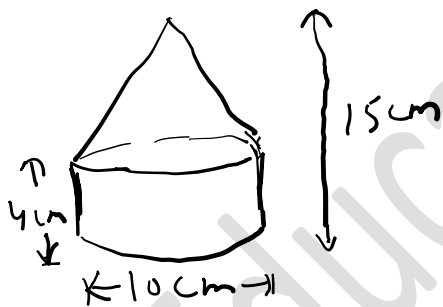
Q12: A cylinder has radius of 5 cm . Its volume is  $232 \text{ cm}^3$ . Calculate the height of the cylinder.

Q13: Calculate the surface area and volume of the cone with  $r = 12 \text{ cm}$  and  $h = 9.2 \text{ cm}$  .

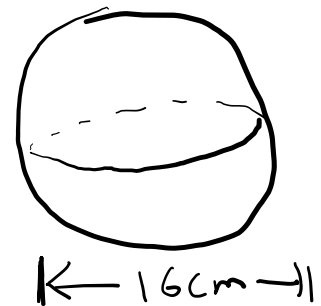
Q14: Work out the surface area and volume of the cuboid with dimensions 12 cm , 14 cm and 18 cm.

Q15: Work out the volume of following shape

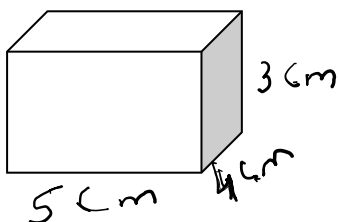
a)



b)



Q16: Diagram shows a cuboid and a cylinder. The cylinder is exactly 3 times the volume of the cuboid. Calculate the height of the cylinder.



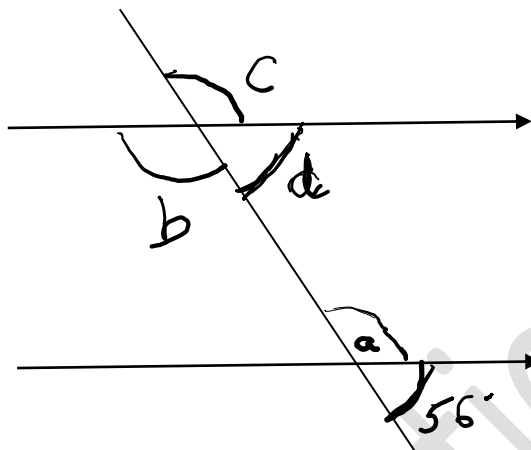
Q17: There are 160 Year 11 pupils in school.  $\frac{3}{10}$  study only French , 35% study only German and rest study both languages.

a) Work out how many people study French and Germany.

b) Calculate the difference between the number of students who study only French and those who do not study French.

Q18: If three angles in a quadrilateral are 85 degrees, 95 degrees, and 110 degrees, what is the measure of the fourth angle?

Q19: Work out the missing angles.



Q20: Work out the missing angles.

