Basic Numbers

MATHS memory Tanzania

Core 1- Bronze Topic: Basic Numbers

Question 1

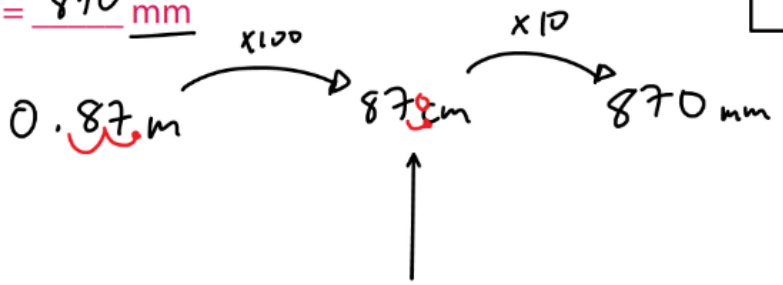
a) i) 550 mm = 55 cm

ii) 6500 m = 6.5 km

iii) 0.057 km = 57 m

iv) 0.87 m = 870 mm

1 cm = 10mm
1 m = 100cm
1 km = 1000m



Bronze

MATHS memory Tanzania

Core 2 - Bronze Topic: Basic Numbers

Question 2

Write 3549 to

i) 1 significant figure 4000

ii) 2 significant figures 3500

b) Write 7.853 to

i) 1 decimal place = 7.9

ii) 2 decimal places = 7.85

c) Estimate: $\frac{24.3 \times 55}{0.025}$ (1sf) $= \frac{20 \times 60}{0.03} = \frac{1200}{0.03}$ $\overset{(\times 100)}{(\times 100)}$ $= \frac{120000}{3} = 40{,}000$

Bronze

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Core 3 - Bronze Topic: Basic Numbers

Question 3

a) Work out :

i) 1¾ + 2½

$1\frac{3}{4} + 2\frac{1}{2} = \frac{7}{4} + \frac{5}{2}$ (×2) (×2)

$= \frac{7+10}{4} = \frac{17}{4} = 4$

ii) 2¼ ÷3½

$2\frac{1}{4} \div 3\frac{1}{2} = \frac{9}{4} \div \frac{7}{2} = \frac{9}{4} \times \frac{2}{7} = \frac{18}{28}$

Bronze

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Core 4 - Bronze Topic: Basic Numbers

Question 4

a) From the set of numbers {3,4, 6,7,8,12,15,20,25,27 ,29}; write down :

i) the prime numbers 3, 7, 29

ii) Square numbers 4, 25 [$2^2=4$, $5^2=25$]

iii) Cube numbers 8, 27 [$2^3=8$, $3^3=27$]

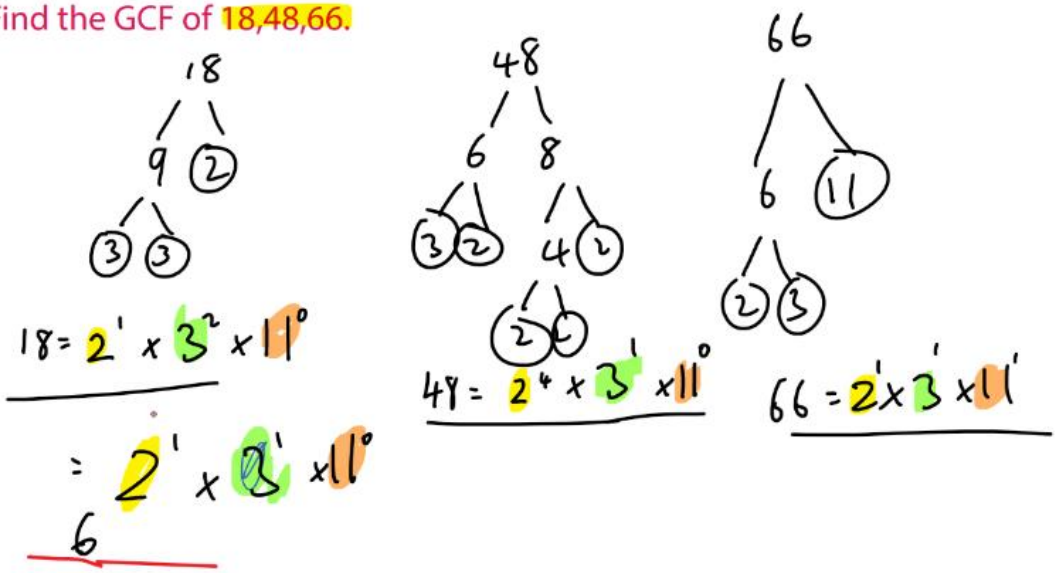
iv) Multiples of 4 4, 8, 12, 20

Bronze

Core 5 - Bronze Topic: Basic Numbers

Question 5

Find the GCF of 18,48,66.

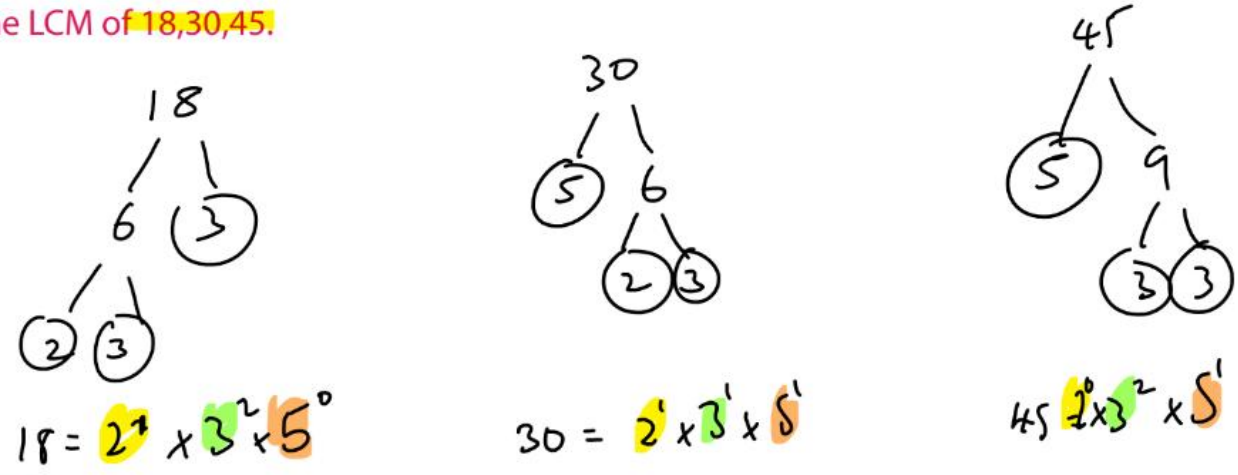


Bronze

Core 6 - Bronze Topic: Basic Numbers

Question 6

Find the LCM of 18,30,45.



LCM = $2^1 \times 3^2 \times 5^1$
$= 2 \times 9 \times 5 = 90$

Bronze

Core 7 - Bronze Topic: Basic Numbers

Question 7

LCM

Bus A , B and C leave the main bus depot at 8am.

Bus A stops every 12 minutes at bus stops along it's journey.
Bus B stops every 15 minutes at bus stops along it's journey.
Bus C stops every 20 minutes at bus stops along it's journey.

A	B	C
12	15	20
24	30	40
36	45	60
48	60	80
60	75	100
72	90	120
84	105	140

When is the next time they will all meet together at a bus stop?

8 am + 1hr (60 min) = 9am

Bronze

Core 8 - Silver Topic: Basic Numbers

Question 8

a) If $p = 4.2 \times 10^5$ and $q = 2.5 \times 10^2$ find the values of :

i) $p \times q$ $= 10.5 \times 10^7 = 1.05 \times 10^8$

4.2×2.5
$= 42$ (1dp)
25 (1dp)
210
$+840$
1050 (2dp)

ii) $p - q$ $4200000 - 250 = 4199750 = 4.1975 \times 10^5$

b) If $p = 2.1 \times 10^7$ and $q = 3 \times 10^3$ find the values of

i) $p \div q$ $0.7 \times 10^4 = 7 \times 10^3$

Silver

Core 9 - Silver Topic: Basic Numbers

Question 9

a) Edward buys 3 litres of water. His cup can take a maximum capacity of 200ml. How many days will it him take to finish all the water.

1 litre = 1000ml

3 litres = 3000ml

$\frac{3000}{200} = \frac{30}{2} = 15$ cups

b) A school's mini bus has a maximum capacity of 30 pupils. A school has 440 pupils. How many mini buses will it need.

$30\overline{)440}$

$3\overline{)44}$ r 2

= 15 buses +

Silver

Core 10 - Silver Topic: Basic Numbers

Question 10

a) Samuel's Maths exam paper has a total of 120 marks available. 25% is for Geometry, 60% for Algebra . The remainder percentage is Statistics. What is the mark allocation for Statistics?

G = 30 marks

A = 72 marks

102

120 − 102 = 18 marks

b) Jessica has 45,000 shillings. She spends 2/5 on her rent. She spends 1/3 on travel. How many shillings does she have left?

12,000

R = $\frac{2}{5}$ of 45,000

$5\overline{)45,000}$ = 9,000

9,000 × 2 = 18,000

T = $\frac{1}{3}$ of 45,000 = 15,000 × 1 = 15,000

Silver