

## S.1 TERM 1 HOLIDAY WORK

1. Find the L.C.M and G.C.F of 30, 45 and 75.
2. When a sum of money is divided in the ratio 2:3:4, the smallest share is 3,000/=. What is the original sum of money?
3. Convert:  $2233_{\text{six}}$  to base eight.
4. Using prime factors, find the square root of 576.
5. Express  $0.\overline{318}$  as a fraction in its simplest form.
6. A circular metal sheet has an area of  $212264\text{cm}^2$ . Two circular sections of areas  $11534\text{cm}^2$  and  $12161\text{cm}^2$  are cut from the sheet. Calculate the area of the metal sheet remaining.
7. A rectangular room measures 420cm by 720cm. Find the length of the largest squares tiles that can be used to cover the floor without requiring any cutting.
8. Evaluate the following;

$$(i) \frac{18 \div (6-3) \times 4 - 2}{18 \div 6 - 3 \times 4 - 2} \quad (ii) \frac{(23+16 \div 4) \times 26 - 13}{-5 + (-8+2)} \quad (iii) \frac{3\frac{1}{8} + 1\frac{2}{3}}{\frac{2}{3} \times \frac{5}{12}}$$

9. Work out the following:

$$(i) \frac{1}{3} \text{ of } \left( \frac{5}{6} - \frac{1}{4} \right) \div 12 \quad (ii) \frac{9}{16} \times \left( \frac{3}{4} - \frac{1}{3} \div \frac{6}{7} \right)$$

10. A bottle contained  $6\frac{2}{5}$  litres of milk. Joan took  $\frac{3}{8}$  of the milk and Hazel took  $\frac{3}{4}$  of the remainder. How much milk remained in the bottle?
11. A rectangle has sides of  $(2x - 4)$  cm and  $x$  cm. If its perimeter as 28cm. Find the;
  - i) length of the sides.
  - ii) length of the diagonal.
  - iii) area of the rectangle

12. In a group of 100 girls, 70 girls like football and 60 like tennis 25 like neither of the games. Use a Venn diagram to find the number of girls who like

- i. both games.
- ii. tennis only.
- iii. football but not tennis.

13. Kirabo was given Shs 40,000 to buy the following items.

6 kgs of sugar, each at Shs 2,800.

4 kgs of Beans, each at Shs 2,100

2 litres of paraffin each at Shs 2,640.

0.5 litres of cooking oil at Shs 3800 per litre

- i) How much did she spend?
- ii) What balance was she given?

14. Gloria walks 5km on a bearing of  $N30^{\circ}E$ . She then changes direction to  $N60^{\circ}E$  in which she walks a further 5km. Find;

- (i) how far North of her starting point she is.
- (ii) how far East of his starting point she is.
- (iii) the bearing of his new position from her starting point
- (iv) the bearing of his starting point from the new point at the end of her walk.

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