

1. Evaluate:

a. $5 \times 6 + (-76) \div 4 + 27 \div 3$ (=2MKS)

b. $(-15) \div 3 \times (-4)$ (=2MKS)

2. Express the first quantity as a fraction of the second to the simplest form

a. 100g, 600g (=1MK)

b. 50kg, 15tonnes (=2MKS)

3. Simplify the algebraic expression given by:

$-2\{-x - 2a - (a - x)\}$ (=3MKS)

4. A number n is such that when it is divided by 27, 30 or 45 the remainder is always 3. Find:

a. L.C.M of 30, 27 and 45 (=2MKS)

b. Find the value of n (=1MK)

5. Convert the following decimals into fractions leaving your answer in standard form i.e. $(A \times 10^n)$

a. $0.\dot{1}\dot{3}$ (=2MKS)

b. $3.\dot{2}\dot{4}$ (=2MKS)

6. By the use of mathematical tables, work out the following expressions leaving your answer in standard form i.e. $(A \times 10^n)$

a. 5.75^2 (=2MKS)

c. $\sqrt{121.81}$ (=2MKS)

b. 0.00015^2 (=2MKS)

d. $\sqrt{0.0012181}$ (=2MKS)

7. A photograph is reduced in the ratio 3:5 for a newspaper and further reduced in the ratio 4:5 for a textbook. Find the ratio of the newspaper size to the textbook size (=3MKS)

8. The LCM of **three** numbers is 6732 and their GCD is 4. **Two** of these numbers are 36 and 68; find the other number(=3MKS)

9. Ole Mandondo made a trip from Gatitu to Machakos a distance of 60000M. He later boarded a train from Machakos to Mombasa 450KM away. Find the ratio of the distance from Machakos to Mombasa to that of Gatitu to Machakos. (=2MKS)