GRADE 9

MATHEMATICS

SECTION A (20 marks)

1. A shopkeeper increased the price of sugar from Ksh120 to Ksh 144. What was the percentage increase?
   A. 20% B. 24% C. 25% D. 15%

2. A grade 9 teacher wrote the expression 5^{-2} on the board. What is the value of 5^{-2}?
   A. 25 B. -25 C. 1/25 D. -1/25

3. A trader bought a phone for Ksh 8000 and sold at a loss of 15%. What was the selling price of the phone?
   A. Ksh 6800 B. Ksh 6200 C. Ksh 6400 D. Ksh 5800

4. Evaluate the value of $\sqrt{(49x^2)} \div 4$
   A. 14 B. 28 C. 56 D. 16

5. Three containers of capacity 15, 20 and 24 litres are used to fill other containers. What is the smallest container that they can fill?
   A. 180 litres B. 240 litres C. 60 litres D. 120 litres

6. Express 0.00036 in standard form.
   A. 3.6×10^{-4} B. 3.6×10^{-5} C. 3.6×10^{-6} D. 3.6×10^{-3}

7. Five machines working 8 hours a day take 5 days to complete a task. How many days will four machines working 8 hours a day take?
   A. 6 B. 10 C. 6¼ D. 8

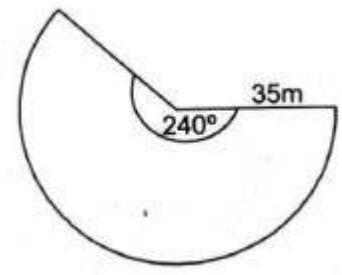
8. Solve for x: $5 - 3x \geq 11$
   A. $x \geq 2$ B. $x \leq 2$ C. $x \geq -2$ D. $x \leq -2$

9. A straight line has its equation as $3x + 4y - 2 = 0$. What is the gradient of the line?
   A. -3 B. -3/4 C. 2 D. -1.5

10. A straight line passing through the origin also passes through point (2,2). Which of the following is an equation of the line?
   A. $x + y = 0$ B. $x - y = 0$ C. $x = -y$ D. $-x = y$

11. A parcel of land has an area of 3.5 hectares. What is the area in square metres?
   A. 35000 B. 3500 C. 350000 D. 30500

12. Determine the area of the sector drawn below



   A. $3850m^2$ B. $2566\frac{2}{3}\ m^2$ C. $1283\frac{1}{3}\ m^2$ D. $10266m^2$

13. A cylindrical water tank has a diameter of 2m and height 3m. What is its volume in m^3? (Use $\pi = 3.14$)
   A. 9.42 B. 12.56 C. 18.84 D. 3.14