1.Work out

1. $\frac{-6+\left(-5\right) × -2}{-4+( -2 )}$ (3mks)
2. $\frac{3}{5}$ $÷ \frac{2}{3}$ - $\frac{1}{6}$ $×$ $\frac{7}{12}$ of ($\frac{1}{2}$ + $\frac{4}{5}$ ) (3mks)

2. Find by factorisation the square root of 30625. (3mks)

3. Use mathematical tables to evaluate $√0.0014735$ to 4 significant figures. (3mks)

4. Express the following decimals as fractions:

 (a) 1.466666............ (3mks)

 (b) 0.061818................ (3mks)

5. Simply and factorize the following expressions:

 (a) 3ab + 2a2b – ab – a2b – 2ab2  (3mks)

 (b) 2p - 4pq + 6pq (2mks)

6. A bottle contained 6$\frac{2}{5}$ litres of milk. Alex took $\frac{3}{8}$ of it and Imani took $\frac{1}{4}$ of the remainder. How much

 milk remained in the bottle? (3mks)

7. Write the following numbers in standard form:

 (a) 120000 (1mk)

 (b) 0.00002935 (1mk)

 (c) 4.561 (1mk)

8. Write out these numbers in ordinary notation:

 (i) 3.45 $× $105

 (ii) 1.56 $×$ 10-3

 (iii) 1.264 $×$ 100 (3mks)

9. Use mathematical tables to find the square of the following numbers:

 (a) 431802 (3mks)

 (b) 0.000072468 (3mks)

10. Factorise and simplify the expression bellow:

 (a) $\frac{x+xc+bx+bc}{3x+3c}$ (4mks)

 (b) Write the expression bellow as a single fraction:

 $\frac{x+y}{9x}$ - $\frac{x-y}{6y}$ - 1 (4mks)

11. In a panel of 45 judges the ratio of men to women is 7:2. The new constitution requires that the ratio of men to women be 5:4. Find the number of women required to join the panel to reach this ratio. (3mks)

12.It takes 30 students 6 days working 8 hours a day to till a piece of land. How many days would it take 50 students working 6 hours a day to till the land? (3mks)

13. The figure below represents the plan of a room in a house.

 (a) What is it the perimeter of the room? Take $π$ = $\frac{22}{7}$ (3mks)

 (b) It costs 125.50 to paint 1m2 of the floor. Find the total cost of painting the whole floor. (4mks)

14. Simplify: 89 – (21 – 2 $×$ 6) + 4(5 – 2) – 20 (2mks)

15. On a cold morning temperature of a town dropped by 4o in an hour. The next hour it dropped 5o more, and in the third hour it fell another 3o but in the fourth hour it rose by 2o. What was the temperature in the fourth hour? (3mks)