Answer all the questions in the spaces provided.

1. A man is 24 years older than his son. After 10 years he will be three times old as his son. How old is the son. 3 mks

2. In the figure below AB = AC, \(\angle ACB = (x + 5)\) and \(\angle BCD = 42^\circ\). Find all the angles of triangle ABC. 3 mks

3. Given that \(x = -2\), find the values of \(y\) and \(z\) for the simultaneous equations below. 3 mks

\[
\begin{align*}
  x + y - z &= -1 \\
  x - 2y + z &= -7 
\end{align*}
\]

4. Akinyi bought three cups and four spoons for sh.324 Wanjiku bought five cups and Fatuma bought two spoons of the same type as those bought by Akinyi. Wanjiku paid sh.228 more than Fatuma. Find the price of each cup and each spoon. 3 mks

5. A rectangular tank of base 2.4m by 2.8m and height of 3m contains 3,600 litres of water initially. Water flows into the tank at the rate of 0.5 litres per second. Calculate the time in hours and minutes required to fill the tank. 3 mks

6. Three businessmen Makokha, Njau and Odhiambo contributed to total amount of sh.120000 to start a business. The ratio of the contributions of Makokha and Njau was 2:3 and that of Njau to Odhiambo was 2:5. How much did Odhiambo contribute? 3 mks

7. It takes 30 workers 6 days working 8 hours a day to harvest maize in a farm. How many days would 50 workers working 6 hours a day take to harvest the maize? 2 mks

8. A manufacture sells a bottle of fruit juice to a trader at a profit of 40%. The trader sells it for sh.84 at a profit of 20%. Find:
   a. The traders buying price. 2 mks
   b. The cost of manufacture of one bottle. 1 mk

9. A Kenyan company received US Dollars 100000. The money was converted into Kenya shillings in a bank which buys and sells foreign currencies as follows:

<table>
<thead>
<tr>
<th>Buying (in Kshs)</th>
<th>Selling (in Kshs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 US (US) 77.24</td>
<td>77.44</td>
</tr>
<tr>
<td>1 Sterling pound (£) 121.93</td>
<td>122.27</td>
</tr>
</tbody>
</table>

   a. Calculate the amount of money, in Kenya shillings, the company received. 2 mks
   b. The company exchanged the Kenya shillings calculated in (a) above, into sterling pound to buy a car from Britain. Calculate the cost of the car to the nearest sterling pound (£) 2 mks

10. A company saleslady sold goods worth sh.240000. From this sale she earned commission of sh.4000.
a. Calculate the rate of commission.  

b. If she sold goods whose total marked price was sh.360000 and allowed a discount of 2%. Calculate the amount of commission she received.