

FRACTIONS MARKING SCHEME

NO	SOLUTION	MARKS
1.	$\frac{1}{2}$ of $\frac{3}{4} = \frac{3}{8}$ $\frac{1}{3}$ of $\frac{3}{8} = \frac{1}{8}$ $\frac{1}{4} + \frac{3}{8} + \frac{1}{8} = \frac{2+3+1}{8}$ $= \frac{6}{8} = \frac{3}{4}$ $\frac{1}{4} - \frac{1}{8} = \frac{2-1}{8}$ $= \frac{1}{8}$ $6 \times \frac{8}{1} = 48$ bags <p style="text-align: right;">1990Q4</p>	3M
2	Korir, wangari, Hassan $\frac{1}{4} \times \frac{2}{5} \times \frac{3}{4}$ c or $\frac{3x}{10}$ or $\frac{3}{2} \times \frac{1}{4} \times \frac{3}{8}$ Bank x - $\left\{ \frac{1x}{4} \times \frac{3x}{10} + \frac{3x}{8} \right\}$ $= \frac{3x}{40}$ $\frac{3}{8} \times \frac{3x}{40} = 60000$ $x = 200000$ <p style="text-align: right;">2000Q15</p>	M1 M1 M1 A1 4 marks
3.	$\frac{1}{3} \times \left(\frac{11}{4} - \frac{22}{4} \right) \times \frac{27}{7} \times \frac{4}{9}$ $\frac{1}{3} \times \frac{11}{4} \times \frac{27}{7} \times \frac{4}{9}$ $= -\frac{11}{7}$ <p style="text-align: right;">2001Q1</p>	M1 A1
4.	mliwa $\frac{3}{8} \times \frac{2}{3} x = \frac{1}{4} x$ Amina x - $\left[\frac{1}{3} + \frac{1}{4} \right] x = \frac{5}{12} x$ $\frac{5}{12} x - \frac{1}{4} x = 40000$ $\frac{2}{12} x = 40000$ $x = 240000$ <p style="text-align: right;">2001Q3</p>	B1 M1 A1
5.	$\frac{1}{2} \times \frac{4}{9} = \frac{2}{9}$ $\frac{2}{5} \times \frac{9}{2} = \frac{9}{5}$ $\frac{9}{5} - \frac{11}{10}$ or $\frac{18-11}{10} = \frac{7}{10}$ $1 \times 3 = 1$ $\frac{6}{8} \times \frac{16}{16}$	M1 M1 A1 3 marks

	$\frac{7}{10} : \frac{1}{16} = \frac{7 \times 16}{10}$ $= 11\frac{1}{5}$ <p style="text-align: right;">2003Q1</p>	
6.	$\frac{\frac{3}{4} + 1\frac{5}{7} \div \frac{4}{7} \times 2\frac{1}{3}}{(1\frac{3}{7} - \frac{5}{8}) \times \frac{2}{3}}$ $= \frac{\frac{3}{4} + 1\frac{2}{7} \times \frac{7}{4} \times \frac{7}{3}}{(1\frac{24}{28} - \frac{35}{28}) \times \frac{2}{3}}$ $= \frac{56}{56}$ Num $\frac{3}{4} + 1\frac{2}{7} \times \frac{7}{4} \times \frac{7}{3} = 3\frac{1}{4}$ Deno. $\frac{45}{56} \times \frac{2}{3} = \frac{15}{28}$ $3\frac{1}{4} \times \frac{28}{15} = 14\frac{7}{15}$ <p style="text-align: right;">2005Q1</p>	M1 M1 A1
7.	$2\frac{1}{4} + \frac{3}{5}$ of $2\frac{2}{5}$ $= \frac{2\frac{1}{4} + \frac{3}{5} \times \frac{6}{5} \times \frac{5}{12}}{1\frac{7}{10}}$ $= \frac{2\frac{1}{4} + \frac{3}{5} \times \frac{1}{2}}{1\frac{7}{10}}$ $= (2\frac{1}{4} + \frac{3}{10}) \div 1\frac{7}{10}$ $= \frac{51}{20} \times \frac{10}{17}$ $= \frac{3}{2}$ or $1\frac{1}{2}$ <p style="text-align: right;">2009Q2</p>	M1 M1 A1 3 marks
8.	Total fractions: $\frac{3}{8} + \frac{2}{5} = \frac{31}{40}$ Remaining fraction = $1 - \frac{31}{40}$ $= \frac{9}{40}$ B1 Original amount = Sh $12330 \times \frac{40}{9}$ $=$ sh 54,800 Tatu's fees = sh $\frac{2}{5} \times 54800$ $=$ sh 21 920 <p style="text-align: right;">2010Q2</p>	M1 M1 A1 M1
9.	$\frac{2\frac{1}{2} + \frac{2}{3} \times \frac{15}{4} - 4\frac{1}{6} = \frac{8}{15}}{1\frac{1}{4} - \frac{12}{5} \times \frac{3}{4} + 3\frac{3}{4} \times \frac{1}{3}}$ $\frac{8}{15} \times \frac{5}{6} = \frac{1}{6}$ <p style="text-align: right;">2011Q1</p>	M1 M1 A1 3
10	$\frac{\frac{6}{5} - \frac{4}{3} - \frac{14}{15}}{\frac{1}{8} - \frac{1}{4} - \frac{2}{15}} - \frac{14}{15}$ $= \frac{\frac{16}{15} - \frac{14}{15}}{\frac{-1}{8} - \frac{2}{15}} - \frac{14}{15}$ $= \frac{\frac{2}{15}}{\frac{-1}{8} - \frac{2}{15}} - \frac{14}{15}$ $= \frac{2}{15}$ <p style="text-align: right;">2012Q1</p>	M1 M1 M1 A1 4

