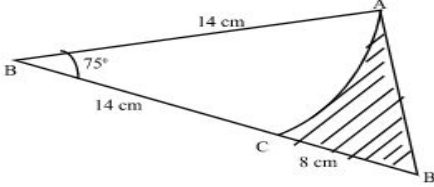


1	<p>Calculate the area of the shaded region below, given that AC is an arc of a circle centre B. AB=BC=14cm CD=8cm and angle ABD = 75° (mks)</p> 																					
2	<p>The scale of a map is 1:50000. A lake on the map is 6.16cm². find the actual area of the lake in hactares.</p>																					
3	<p>Wekhomba bought a laptop in Uganda for Ush.1,050,000. He then paid 60 US dollars as transportation charges to Kenya. On arrival in Kenya he paid duty and sales tax amounting to 55% of the cost in Uganda. He then gave it to a friend in Tanzania tax free. If the exchange rates were 1 US dollar = Ush 1016, 1Ksh = Ush 24.83 and Tsh 1 = Ksh 0.0714</p> <p>(a) Calculate the total expenses in Kenya shillings incurred by Wekhomba (b) Find the expenditure on transportation and taxes as a percentage of the total expenditure (c) What is the total value of the laptop in Tanzanian shillings (d) Find the overall increase in value of the laptop as percentage of the buying price</p>																					
4	<p>A farmer made a loss of 28% by selling a goat for Sh.1440. What percentage profit would he have made if he had sold the goat for Sh.2100?</p>																					
5	<p>The purchase price of a TV consists of sh.4600 deposit and 8 equal monthly installments of sh.840. Given that the carrying charge is sh.2800. Find the cash price</p>																					
6	<p>A field was surveyed and its measurements recorded in a field book as shown below.</p> <table border="1" data-bbox="616 1323 1098 1574"> <tbody> <tr> <td></td> <td>F</td> <td></td> </tr> <tr> <td></td> <td>100</td> <td></td> </tr> <tr> <td>E 40</td> <td>80</td> <td></td> </tr> <tr> <td></td> <td>60</td> <td>D 50</td> </tr> <tr> <td>C 40</td> <td>40</td> <td></td> </tr> <tr> <td></td> <td>20</td> <td>B 30</td> </tr> <tr> <td></td> <td>A</td> <td></td> </tr> </tbody> </table> <p>(a) Using a scale of 1cm to represent 10m, draw a map of the field. (4mks) (b) Calculate the area of the field.</p>		F			100		E 40	80			60	D 50	C 40	40			20	B 30		A	
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7	<p>A map has a scale 1:40,000:</p> <p>(a) Calculate the distance between two points on the ground if the corresponding distance shown on the map is 3.25cm (b) Calculate the area in the map of woodland which occupies 36ha on the ground</p>																					
8	<p>Write the expression $\frac{6}{3x-y} - \frac{2}{x-2}$ as single fraction in the simplest form.</p>																					

9	The ratio of John's earning to that of James is 5 : 3. If John's earnings increased by 12% his new earnings becomes Kshs 5600. Find the corresponding percentage in James' earnings if the sum of their new earnings is Kshs 9600. (3 marks)									
10	Without using tables or calculator evaluate $\frac{27.72 \times 0.3876}{2.09 \times 0.4284}$									
11	Solve the equation $\frac{5y}{3} - \frac{2y-5}{2} = \frac{y}{4}$									
12	In order to complete a job in 10 days, a company employs 30 men to work at a rate of 8 hours a day. How long will it take 20 men working at the rate of 12 hours a day to complete the same job (3mks)									
13	Use reciprocal and square root tables to evaluate $\frac{2}{347} + \sqrt{7329}$									
14	<p>A tourist came to Mombasa with USA dollars 7518. While in Kenya he spends ksh 380,000. He later converts the balance to British pounds sterling. Use the table below to calculate how much he got in sterling pounds (3mks)</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th></th> <th>Buying (ksh)</th> <th>Selling (ksh)</th> </tr> </thead> <tbody> <tr> <td>USA dollar</td> <td>98.4</td> <td>98.5</td> </tr> <tr> <td>Sterling pound (£)</td> <td>140.3</td> <td>140.5</td> </tr> </tbody> </table>		Buying (ksh)	Selling (ksh)	USA dollar	98.4	98.5	Sterling pound (£)	140.3	140.5
	Buying (ksh)	Selling (ksh)								
USA dollar	98.4	98.5								
Sterling pound (£)	140.3	140.5								
15	<p>Evaluate:</p> $\frac{-8 + (-5) \times (-8) - (-6)}{-3 + (-8) \div 2 \times 4}$									
16	<p>Use substitution method to solve the simultaneous equations:</p> $\begin{aligned} x + 2y &= 5 \\ 3x - 2y &= 7 \end{aligned}$									
17	Convert $0.\dot{2}1\dot{3}$ to a fraction.									
18	A teacher had a certain number of books. She gave $\frac{1}{3}$ of the books to John and $\frac{1}{4}$ to Lucy. She gave $\frac{1}{10}$ of the remaining books to Juma. If the teacher was left with 18 books, how many books had she given to Lucy? (4mks)									