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| **Gatitu Mixed Secondary School** |
| **Form 4** | **Term 1** | **121 A - Mathematics** | **07-Jan-16** | **Opener** |

1. Without using mathematical tables evaluate 4mks

Sin 60 tan 30 tan 45 – cos 45 sin 45 cos 60

Cos 30 tan 60 sin 30 – cos 60 sin 60 cos 30

1. Syengo spends 1/3 of his salary on food, ¼ on rent , 3/5 of the remainder on transport and saves the rest. If he spends sh. 1800 on transport, find how much money he saves. 3mks
2. The fig shows 2 circles centre A and B and radii 6 cm respectively. The circles intersect at P and Q. angle PAB = 420 and angle ABQ = 300.



1. Find the size of angle PAQ and PBQ 2mks
2. Calculate to one decimal place the area of
3. Sector APQ and PBQ 2mks
4. Triangle APQ and PBQ 2mks
5. The shaded area (take II =22/7) 4mks
6. Vectors r and s are such that r= 7i +2j – k and s= -I +j –k find /r+s/ 3mks
7. Muga bought a plot of land for ksh. 280,000. After 4 years , the value of the plot was ksh, 495,000. Determine the rate of appreciation, per annum, correct to one decimal place. 3mks
8. Points A( -2,2) and B (-3,7) are mapped onto A1(4,-10) and B1(0,10) by an enlargement. Find the scale factor of enlargement. 3mks
9. *The table below shows the frequency distribution of marks cored by students in a test.*

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| *marks* | *Frequency* |
| 1-10 | 2 |
| 11-20 | 4 |
| 21-30 | 11 |
| 31-40 | 5 |
| 41-50 | 3 |

Determine the median mark correct to 4 s.f. 4mks