

Summative Evaluation N° II

Class : Form 4 SUBJECT: MATH1EMATICS Coefficient: 4

Teacher: Mr. NTANG Albert

Time allowed: 1h30min

1) Simplify the following

i) $\sqrt{\frac{27}{4}}$

ii) $(2 + \sqrt{3})(3 - 2\sqrt{3})$

iii) Rationalise $\frac{1}{3-2\sqrt{5}}$

2) If $\log_5 2 = 0.431$ and $\log_5 3 = 0.682$. find the value of $\log_5 6$

3) Simplify the following;

a) $\log_2 3 + \log_2 6$

b) $\log_3 24 + \log_3 15 - \log_3 10$

4) Given the following matrices; $A = \begin{pmatrix} 1 & 2 \\ 3 & 4 \end{pmatrix}$ $B = \begin{pmatrix} 1 & 3 \\ 1 & 5 \end{pmatrix}$

Solve the following :

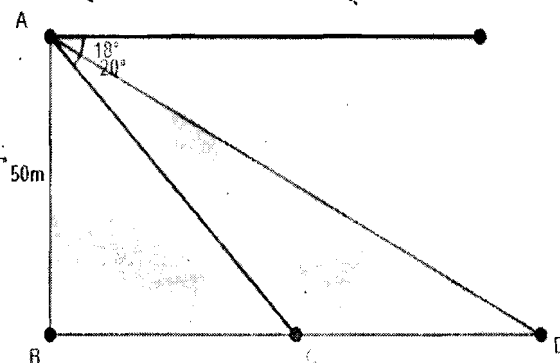
i) $A + B$

ii) $A - B$

iii) $5A$

iv) $A \times B$

5) Nadine stands on top of a cliff 50m high. She is in line with a girl and a boy whose angles of depression are 18° and 20° respectively. Calculate the distance between the boy and the girl. This problem is illustrated in the figure below where the girl and the boy are C and D respectively and the observer is A.



6) Two boats, A and B leave a port at 07:00h. Boat A travels at 25 km/h on a bearing of 037° , boat B travels at 15 km/h on a bearing of 140° . After 3 hours, how far is A from B