NAME: OGBUDO PRAISE IFEANYI

COURSE CODE: MAT 102

COURSE TITLE: GENERAL MATHEMATICS II

MATRIC NO: 19/ENG02/040

 SOLUTION TO ASSIGNMENT

1i) A=(2i-j), B=(3i+j-11k) &C=(4i+4j-5k)

-3A=-3(2i-j)

=-6i+3j

7B=7(3i+J-11k)

=21i+7j-77k

-8C=-8(4i+4j-5k)

=-32i-32j+40k

3A+7B-8C=(-6i+3j) +(21i+7j-77k) +(-32i-32j+40k)

=-17i-22j-37k

=-1(17i+22j+37k)

ii)2A+4B-C

2A=2(2i-j)

=4i-2j

4B=4(3i+j-11k)

=12i+4j-44k

-C=-1(4i+4j-5k)

=-4i-4j+5k

2A+4B-C=12i-2j-39k

Therefore/k/=$\sqrt{1669}$

Cos A=$\frac{12}{\sqrt{1669}}$ =0∙29$°$

Cos B=$\frac{-2}{\sqrt{1669}}=-0∙05$

Cos C= $\frac{-39}{\sqrt{1669}}= -0∙95$

iii)A\*B\*C

=2i-j

+3i+j-11k

+4i+4j-5k

=9i+4j-16k

iv)(3A\*B).(A\*2B)

3A=3(2i-j)

=6i-3j

2B=2(3i+j-11k)

=6i+2j-22k

(3A\*B)=9i-2j-11k

(A\*2B)=8i-3j-11k

=72+6+121

=199

v)=-8i-7j+27k

2)Vectors in the same plane are called coplanar vectors

Perpendicular vectors are vectors in adjacent planes