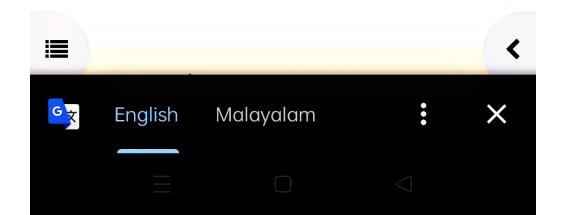
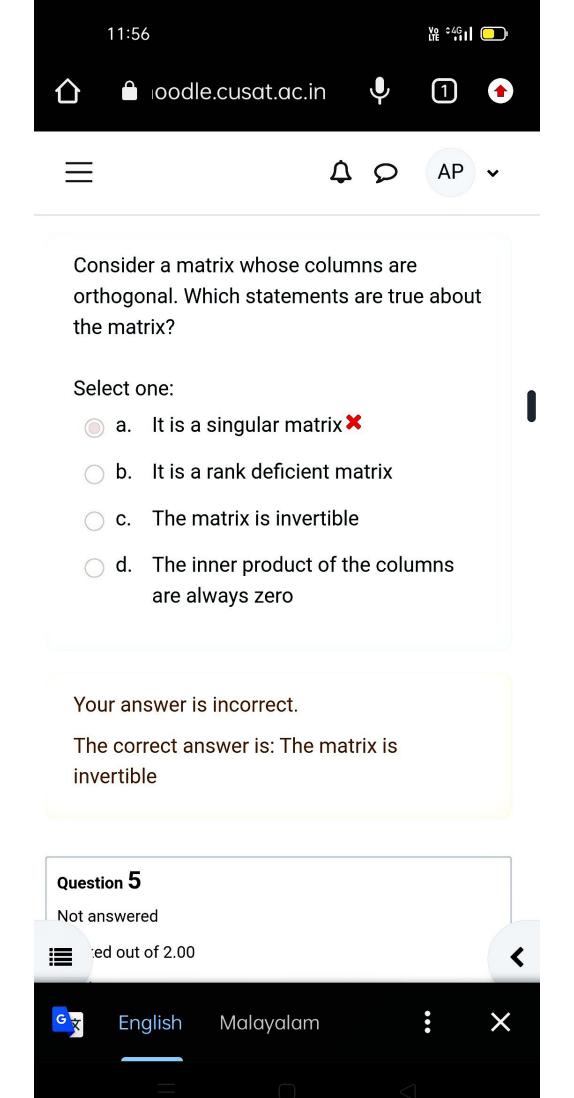
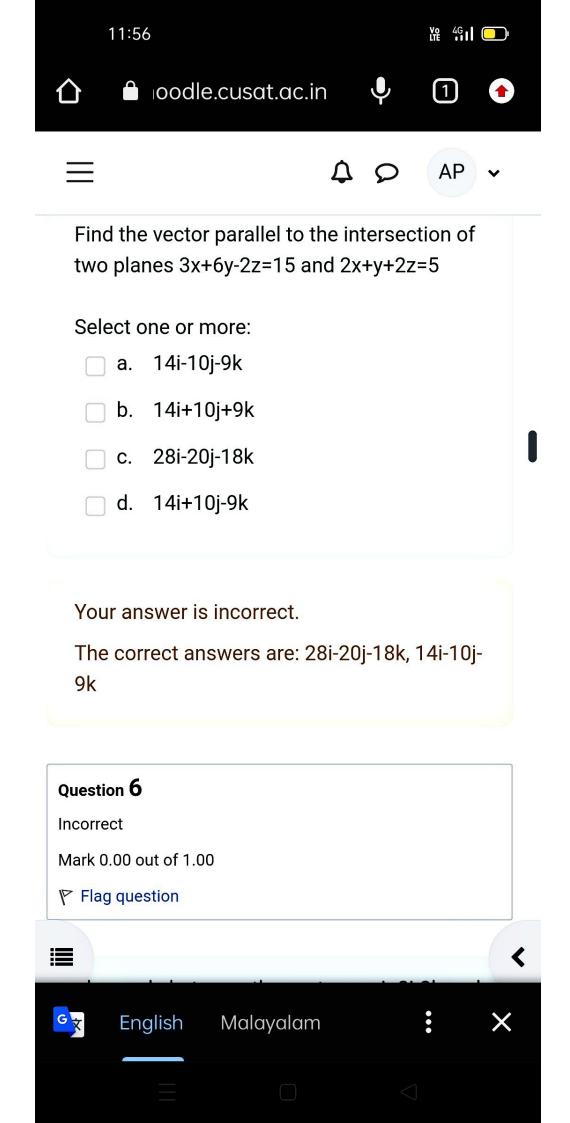


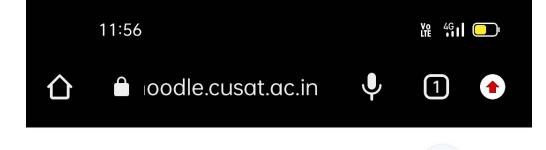
How to invert a matrix A?

- a. Augment an identity matrix to A and use row operations to convert Augmented matrix to an identity matrix the Augmented part becomes the inverse
- b. Apply LU decomposition of A and U becomes the inverse
- c. Augment an identity matrix to A and use row operations to convert A to an identity matrix the Augmented part becomes the inverse
- d. Augment an identity matrix to A and use row operations to convert the matrix A to an identity matrix then A becomes its inverse.









AP

The angle between the vectors u=i+2j-2k and v=6i-3j-2k is:

Select one:

- \bigcirc a. $cos^{-1}(4/21)$
- \odot b. $cos^{-1}(-4/21)$ imes
- \bigcirc c. cos(-4/21)
- \bigcirc d. $tan^{-1}(-4/21)$

Your answer is incorrect.

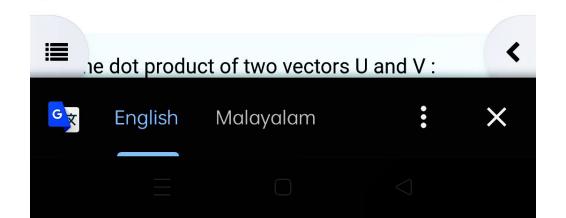
The correct answer is: $cos^{-1}(4/21)$

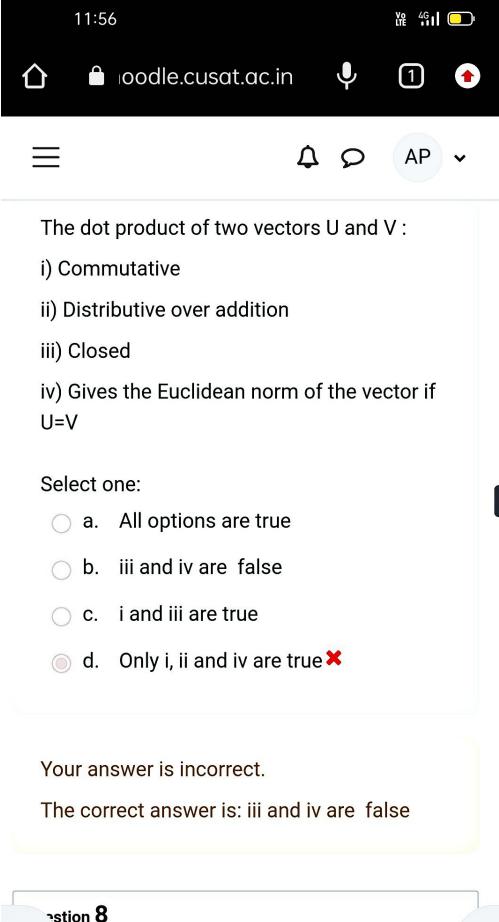
Question 7

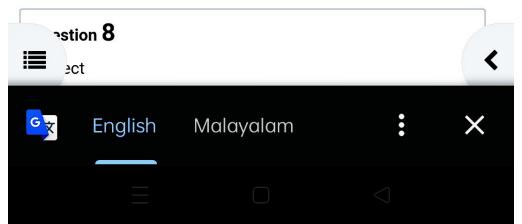
Incorrect

Mark 0.00 out of 1.00

▼ Flag question











The projection of u=6i-3j-2k onto v=2i+2j-2k and the scalar component of u in the direction of v are and, respectively.

Select one:

$$igcup a. \ \ 5/6*(2i+2j-2k), 5/(\sqrt{3})$$

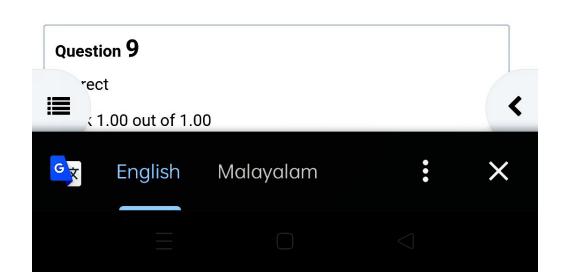
$$\circ$$
 b. $5/6*(2i+2j-2k), 10/(4*\sqrt{3})$

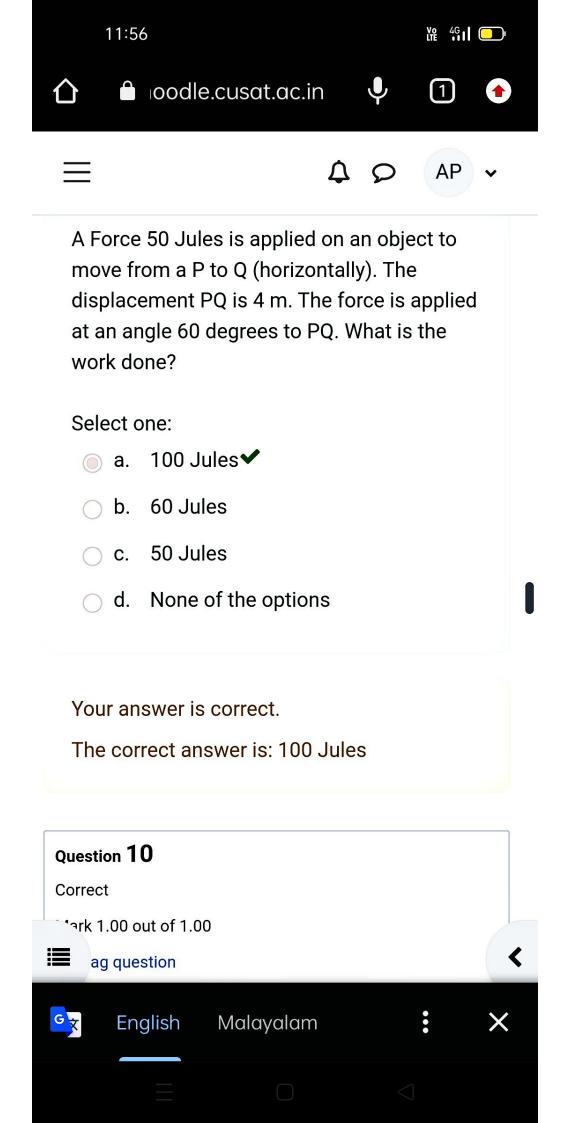
- o. none of the options
- \circ d. $5/6*(2i+2j+2k), 5/(\sqrt{12})$

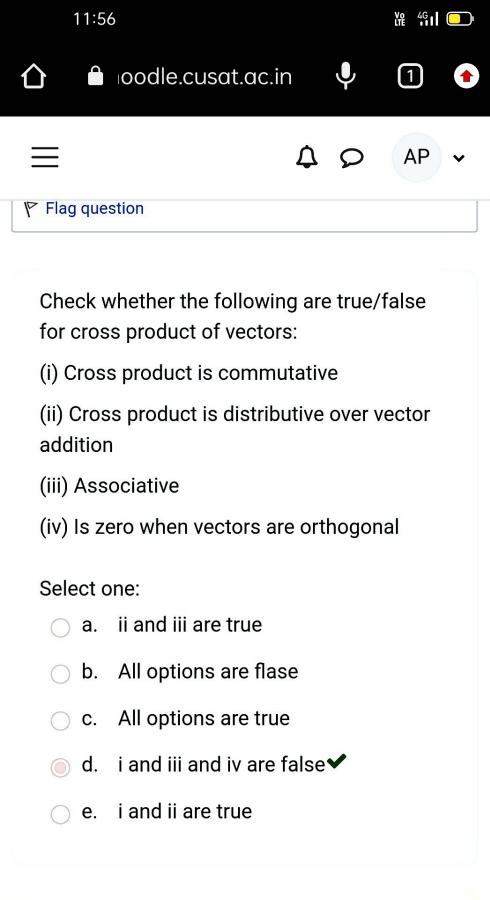
Your answer is correct.

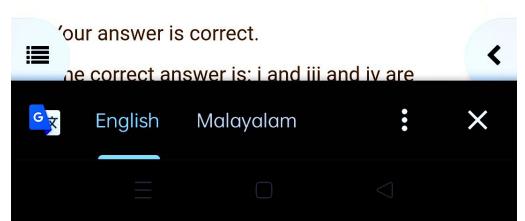
The correct answer is:

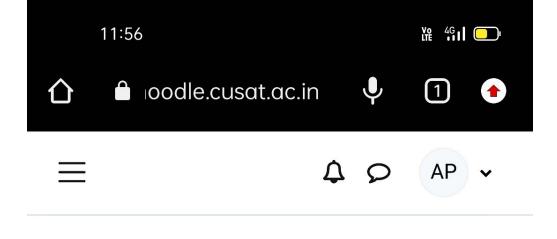
$$5/6*(2i+2j-2k), 5/(\sqrt{3})$$











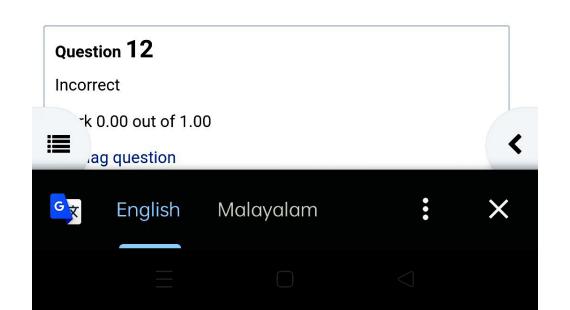
A handle bar of length 4 ft is acted upon by a force of 20lb at an angle 30 degrees. What is the magnitude of the torque generated by this force?

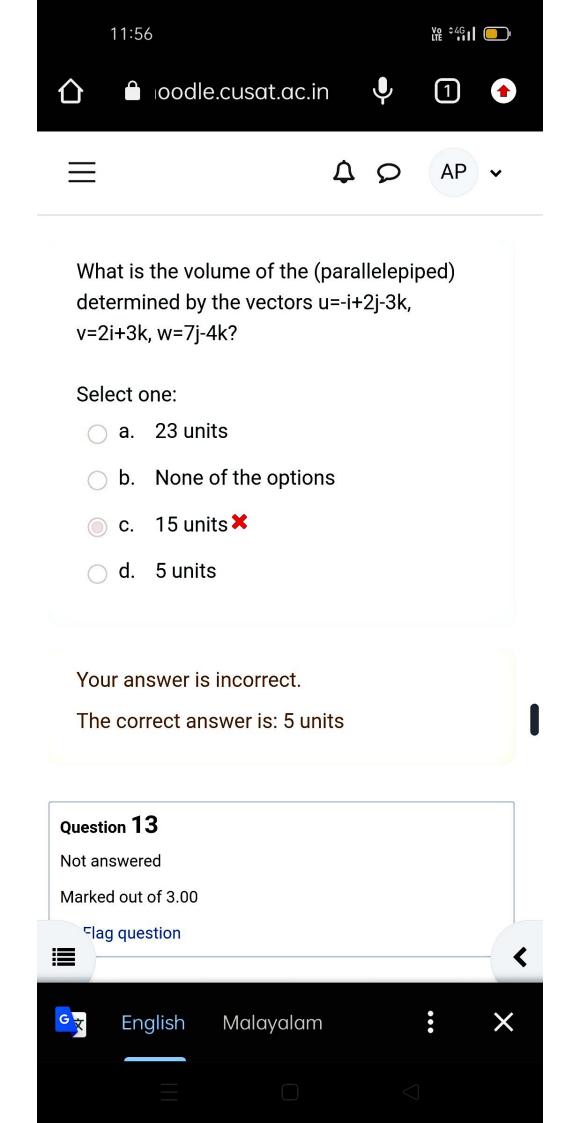
Select one:

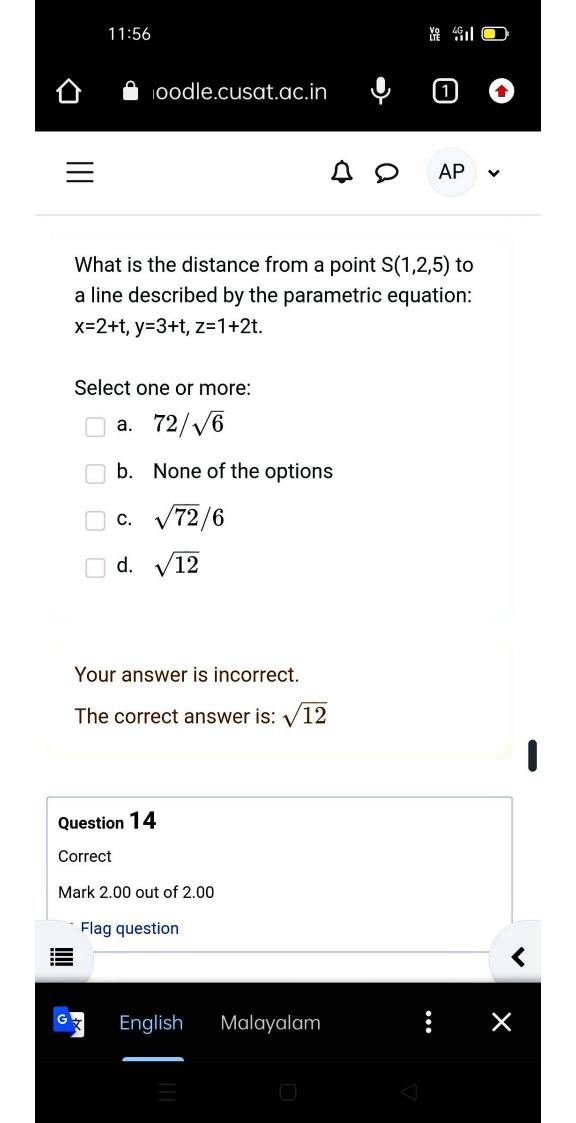
- a. 40 ft-lb
- b. None of the options
- o. 80 ft-lb
- od. 70 ft-lb

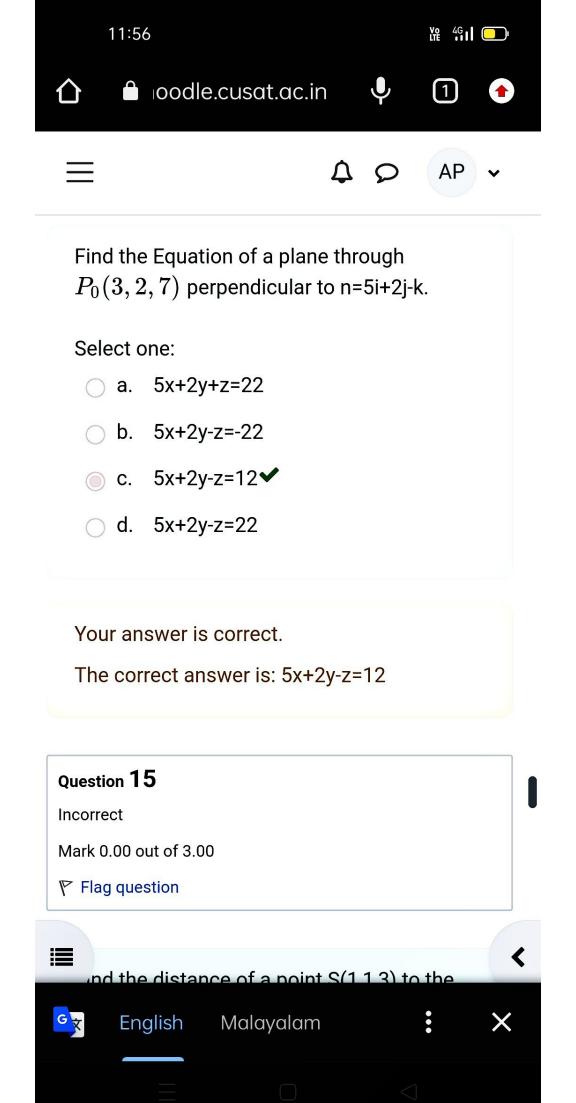
Your answer is correct.

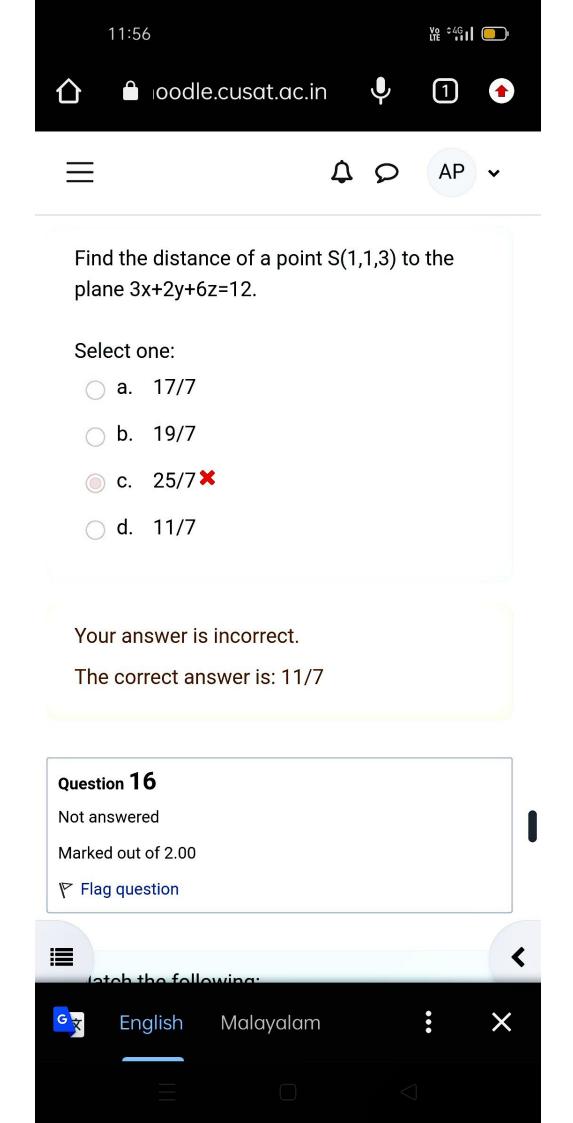
The correct answer is: 40 ft-lb



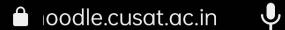
























AP

1)
$$x^2 + y^2 + 4z^2 = 10$$

a)

Hyperboloid

2)
$$z^2 + 4y^2 - 4x^2 = 4$$

b)

Cylinder

3)
$$9y^2 + z^2 = 16$$

c) Ellipsoid

Select one:

Your answer is incorrect.

The correct answer is: 1->c, 2->a, 3->b

Question 17

Not answered



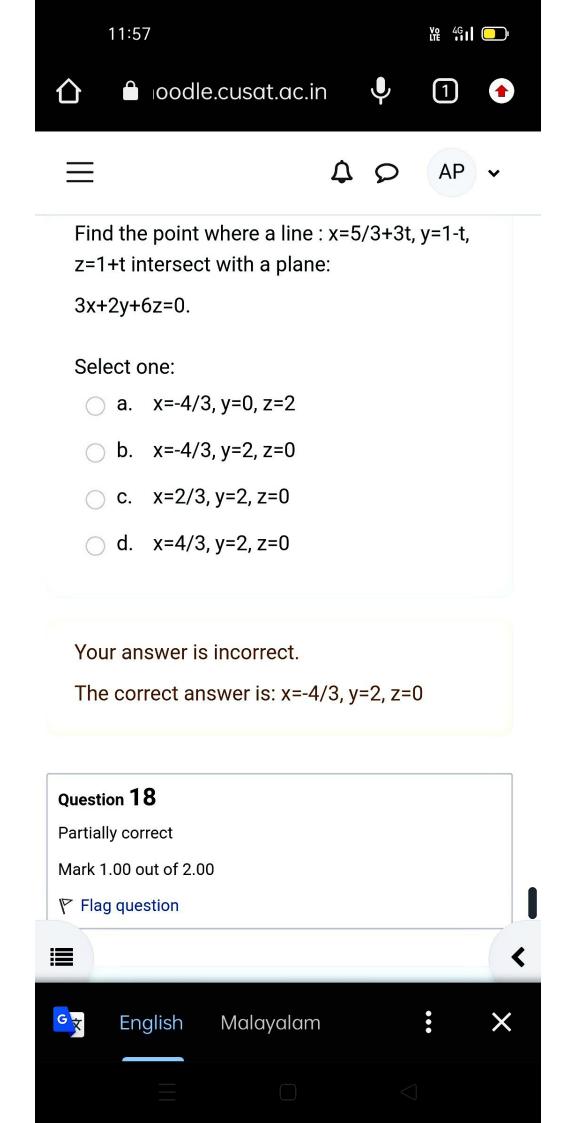
ed out of 1.00





English Malayalam













AP

What is the center and radius of a sphere:

$$x^2 + y^2 + z^2 + 4x - 3y + 2 = 0$$

Select one:

- \bigcirc a. (-2,-3/2,0), $\sqrt{17/2}$
- \bigcirc b. (2,-3/2,0), $\sqrt{17/2}$
- \bigcirc c. (-2,3/2,0), $\sqrt{17}/2$
- od. None of the options
- e. $(2,-3/2,0), \sqrt{17}/2$

Your answer is partially correct.

The correct answer is: (-2,3/2,0), $\sqrt{17}/2$

Question 19

Incorrect

Mark 0.00 out of 1.00



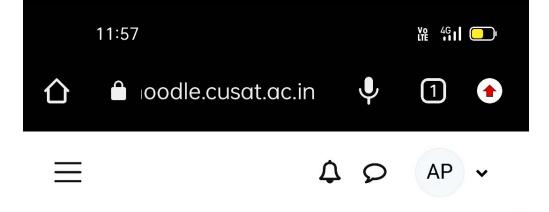
'ag question





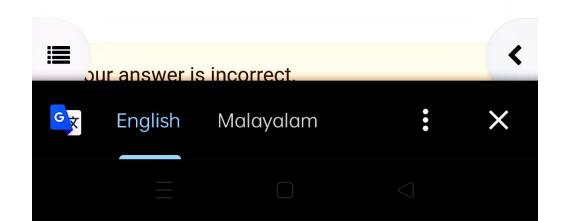
English Malayalam

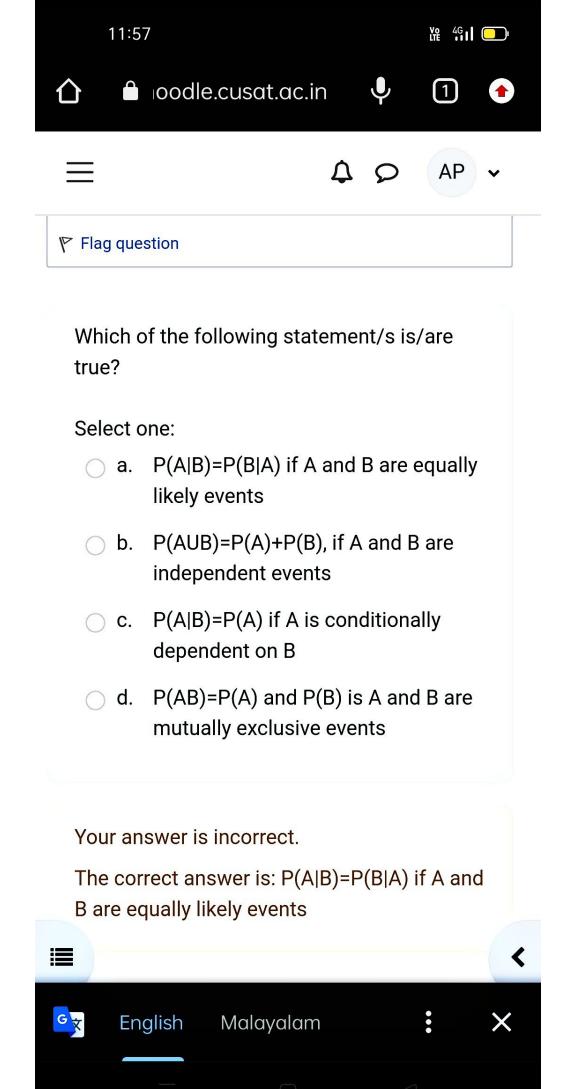




Three identical boxes contain red and white balls. The first box contains 3 red and 2 white balls, the second box has 4 red and 5 white balls, and the third box has 2 red and 4 white balls. A box is chosen very randomly and a ball is drawn from it. If the ball that is drawn out is red, what will be the probability that the ball is chosen from the second box?

- a. 10/31
- b. 30/62
- c. None of the options *
- d. 10/21
- e. 20/31





Consider a matrix $A = egin{bmatrix} 2 & 3 \ 4 & 5 \end{bmatrix}$. What will

be the L matrix if we decompose A into LU. Where L and U are the lower and upper triangular matrices, respectively.

$$egin{bmatrix} \mathsf{a.} & egin{bmatrix} 2 & 0 \ 3 & -1 \end{bmatrix}$$

$$egin{bmatrix} \mathsf{b}. & egin{bmatrix} 1 & 0 \ 2 & 1 \end{bmatrix}$$

$$\bigcirc$$
 c. $\begin{bmatrix} 2 & 3 \\ 0 & -1 \end{bmatrix}$

$$egin{bmatrix} \bullet & \mathsf{d}. & \begin{bmatrix} 1 & 0 \\ -2 & 1 \end{bmatrix}$$

Consider three points A(0,3,0) B(2,0,0) C(0,0,1) on a plane. What is the vector perpendicular to AB and AC?

- a. 3x+2y+6z=1
- b. -3i+2j-6k
- o c. -3i-2j-6k
- d. 3i+2j+6k=0