SCALARS AND VECTORS
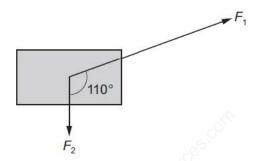
1   A scalar quantity has

   A   magnitude and direction.

   B   no magnitude and no direction.

   C   magnitude but no direction.

   D   direction but no magnitude.

2   Which row describes speed and velocity?

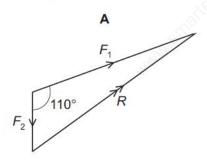|	speed	velocity
A	scalar	scalar
B	scalar	vector
C	vector	scalar
D	vector	vector

3   Which list contains only scalar quantities?

   A   acceleration, energy, force, mass

   B   acceleration, force, momentum, velocity

   C   distance, energy, mass, speed

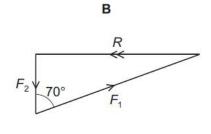   **D**   distance, momentum, speed, velocity

4   Which list contains only vector quantities?

    A   energy, force, velocity

    B   speed, acceleration, force

    C   velocity, energy, acceleration

    D   velocity, force, acceleration

5   The diagram shows the only two forces F_1 and F_2 acting on an object. The magnitude of each force is represented by the length of each arrow.
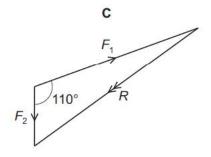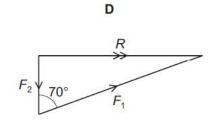

The resultant force acting on the object is R.

Which vector diagram shows how forces F_1 and F_2 add to produce R?

6 An astronaut orbits the Earth in a space station.

Which is a vector quantity?

A the mass of the astronaut

B the speed of the satellite

C the temperature inside the satellite

D the weight of the astronaut

7 Which quantity is **not** a vector?

A acceleration

B temperature

C velocity

D weight

8 Which quantity is a vector?

A acceleration

B distance

C speed

D mass

9 Which list contains only vector quantities?

    A   acceleration, energy, force, mass

    B   acceleration, force, momentum, velocity

    C   distance, energy, mass, speed

    D   distance, momentum, power, speed

10 Which quantities are both vectors?

    A   acceleration and force

    B   acceleration and pressure

    C   density and force

    D   density and pressure