



Do now task: Wordsearch

O J Q I H G J W D S E R H R O
 N M O M E N T C I C Z E E A Q
 N O T W E N H N R K E S Q L P
 G P I L N I C O P V V U U A J
 B N O T L O F J P J F L I C B
 I A B E U O I X B O G T L S G
 D V V A K L K T M X D A I J X
 K E M J P D O E C S A N B C X
 R U W K O H R S I A G T R N F
 U M J W R N H M E I E M I R Q
 P M U T N E M O M R H R U O L
 P I B F M I X C C Q U U M T F
 Q A V Q T R K K V H G Q L C G
 G L M O W R G X R G G V Y E C
 M W K Q T M P F R D Z O F V Z

- Equilibrium
- Load
- Newton
- Resolution
- Vector
- Force
- Moment
- Pivot
- Resultant
- Lever
- Momentum
- Reaction
- Scalar

Task 1: Scalar and vector

1/ What is the difference between a scalar and vector quantity?

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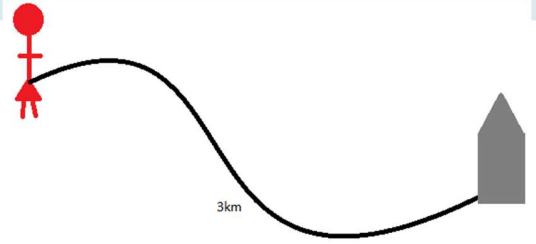
.....

2/ Place the values in the correct column in the table:

Scalar	Vector

- | | | | | | | |
|--------------|-------|----------|--------------|--------|----------|--------|
| Length | Force | Power | Acceleration | Volume | Mass | Weight |
| Area | Work | Speed | Velocity | Energy | Distance | |
| Displacement | | Pressure | Momentum | | | |

3/ Little red riding hood lives 2km from her grandmother. She uses the indirect forest path, walking 3km to get to her grandmothers house. This takes her 0.5 hours.



a) What is the distance walked by little red riding hood?

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b) What is the displacement of little red riding hood?

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c) What is the speed travelled by red riding hood?

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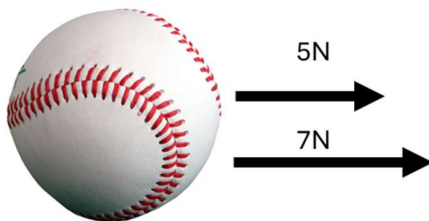
d) What is the velocity of red riding hood?

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Task 2: Resultant Force

1. Calculate the resultant force in each of the following situations:

a)



Resultant =

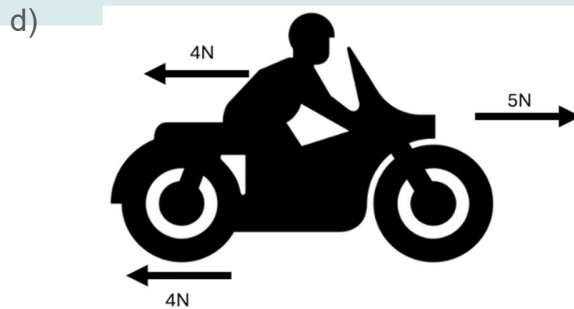
b)



Resultant =

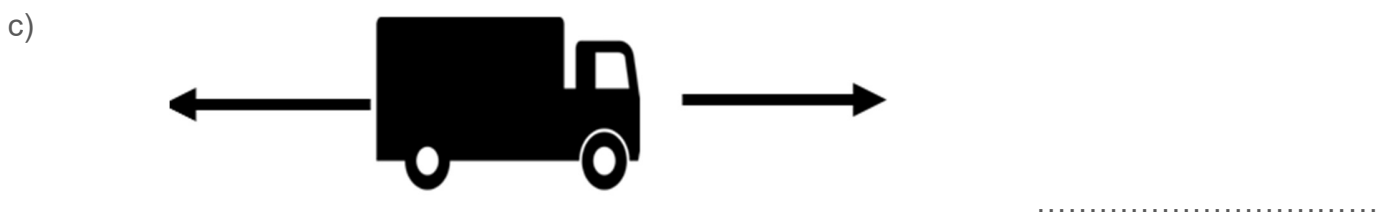
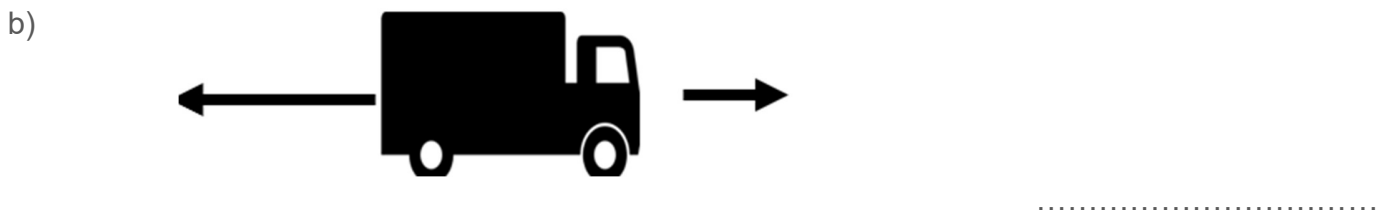
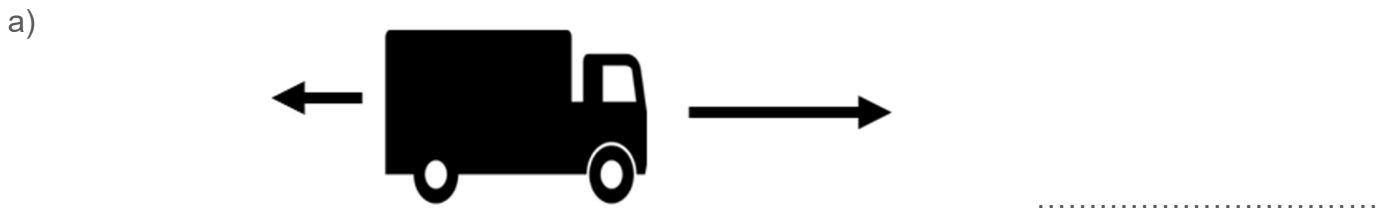


Resultant =



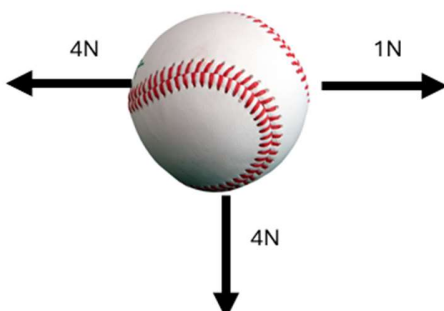
Resultant =

2/ Describe if the truck is accelerating, decelerating or constant speed.



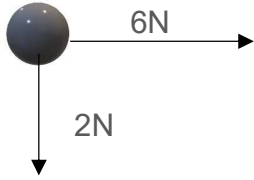
Task 3: Parallelogram of forces

1/ Use the parallelogram of forces method to find the resultant force acting on this ball:

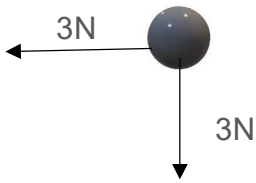


2/ Find the resultant force in each diagram:

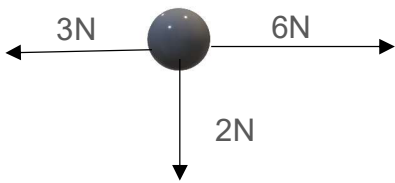
a)



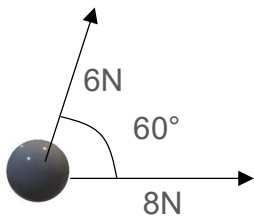
b)



c)



d)



Notes

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A series of horizontal dotted lines for writing.