

# Problems of the Day

Physics 11

2019-20

Welcome to the problem of the day!

# Instructions

- ✓ Create a section for PODs in your notebook
- ✓ Number each POD
- ✓ Show ALL your work – scratch work is good!
- ✓ Name your strategy
- ✓ Make up the ones you miss
- ✓ Have them checked at notebook check

# POD#1

Find a way to split the class in two groups of equal size.

Even better if it is repeatable (would work on any day) and/or easy to do.

## POD #2

How many seconds long is this class?

## POD #3

Convert 43 km/hr to m/s

## POD #4

- Find the slopes  $m_1$ ,  $m_2$ ,  $m_3$ , and  $m_4$  of the graph.



## POD #5

What is the area of the rectangle using the correct # of Significant Figures?



## POD #6

Graph the following situation:

A person walks in straight line for 800 m at 5 km/hr.

Think of choosing your axes and labeling everything well.



## POD #7

Sue left school and walked 0.5 km due north on Blue St. and turned right to walk 0.2 km due east on Red St. to get to the store.

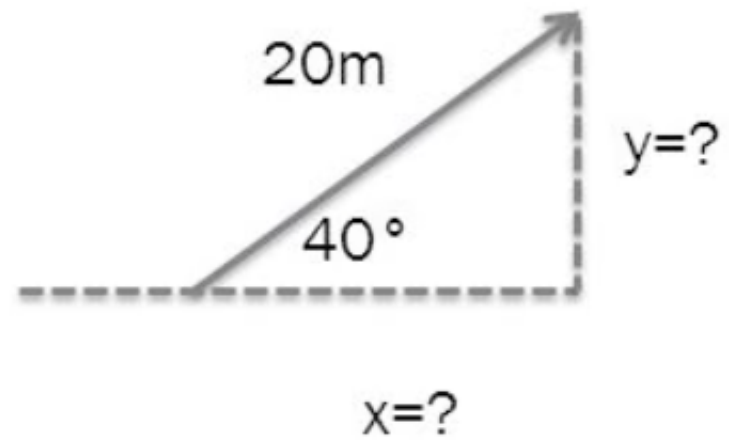
Then she walked 0.3 km due east and turned right to walk 0.1 km due south on Orange St. to get to the post office.

From there she walked 0.4 km south on Orange St. and 0.25 km west on Yellow St. to get to the library. She finished her trip by continuing 0.75 km west to go home.

- a. What is the distance she traveled?
- b. What is her final displacement from school?

## POD #8

Find  $x$  and  $y$ .



**IF YOUR CALCULATOR ISN'T IN  
DEGREES**

**YOU'RE GONNA HAVE A RAD  
TIME!**

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## POD #9

- If you ride a bike a distance of 5 meters in 1 second, what is your speed?
- What additional information do you need to know to calculate the velocity of the bike?

## POD #10

- A dolphin swims at about 25 m/s. How far will the dolphin swim in 3 minutes?

