Friday, January 12, 2018

Your Learning Goal:

After students explore several internet websites, they will explain the difference between motion, reference point, and speed with 80% accuracy.

Table of Contents: Speed it Up* – 17R

Catalyst (17L):

The trash can is to the left of the light post. There is also a fence behind the light post. What is the reference point in that situation and how do you know?

Homework:

Speed Problems

DUE FRIDAY

Agenda:

1. Catalyst
2. Trackstar
3. Reflection

Table of Contents

Catalyst:

The trash can is to the left of the light post. There is also a fence behind the light post. What is the reference point in that situation and how do you know?

The _____ is the reference point in this example. I know that _____ is the reference point because…

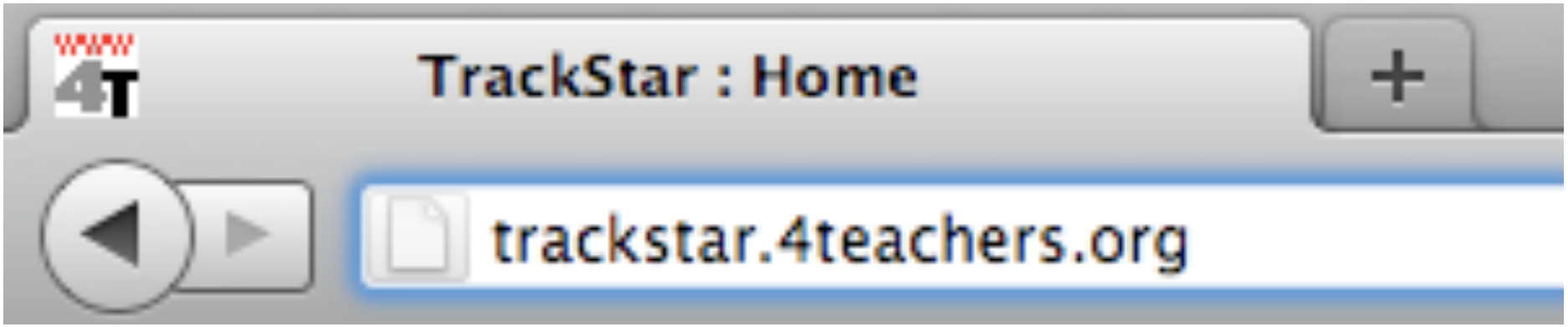
17L

Speed it Up 1/12/18

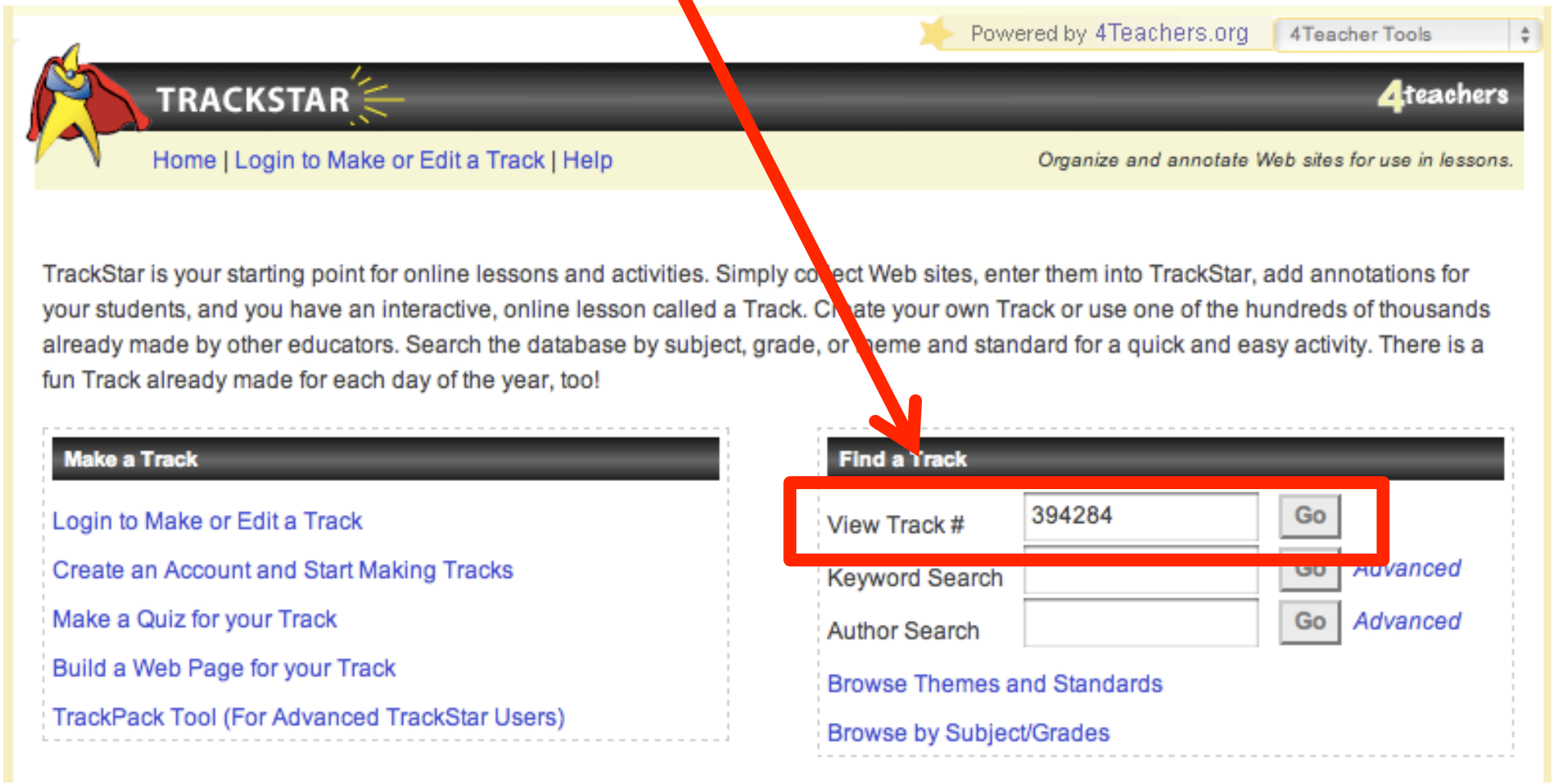
17R

- Open up a web browser (Firefox, Safari, or Google Chrome)
- Type in trackstar.4teachers.org

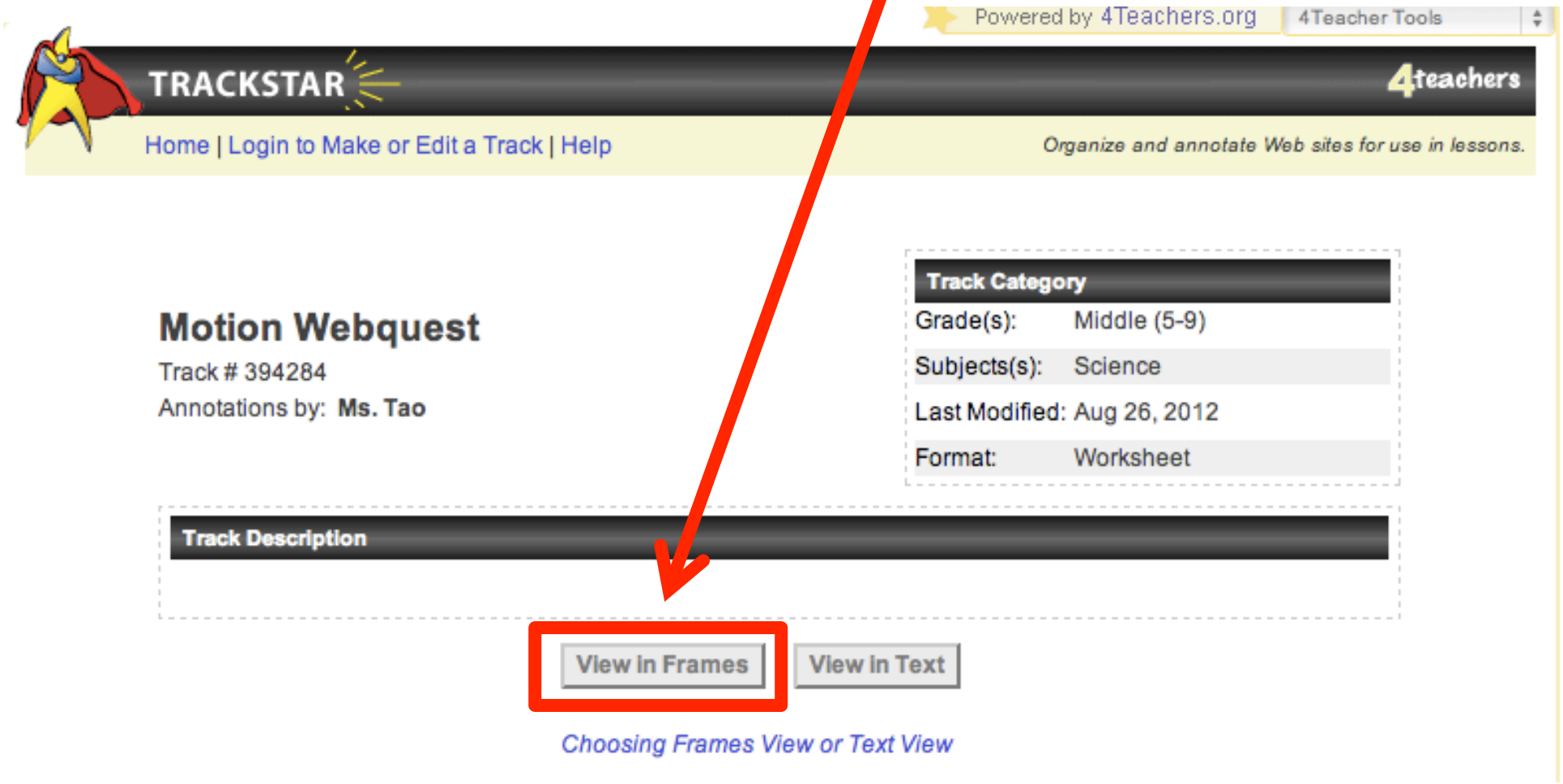
(NO www)



- **Find "View Track #." Type in "394284" and click "Go."**



- **Click "View in Frames."**



TRACKSTAR

Motion Webquest
Annotation by Ms. Tao

Sites for Track #394284

1. **Reference Point**
2. **What is speed?**
3. **How fast is fast?**
4. **A Day at the Races**
5. **Speed Review**

Track Description
E-mail this Track

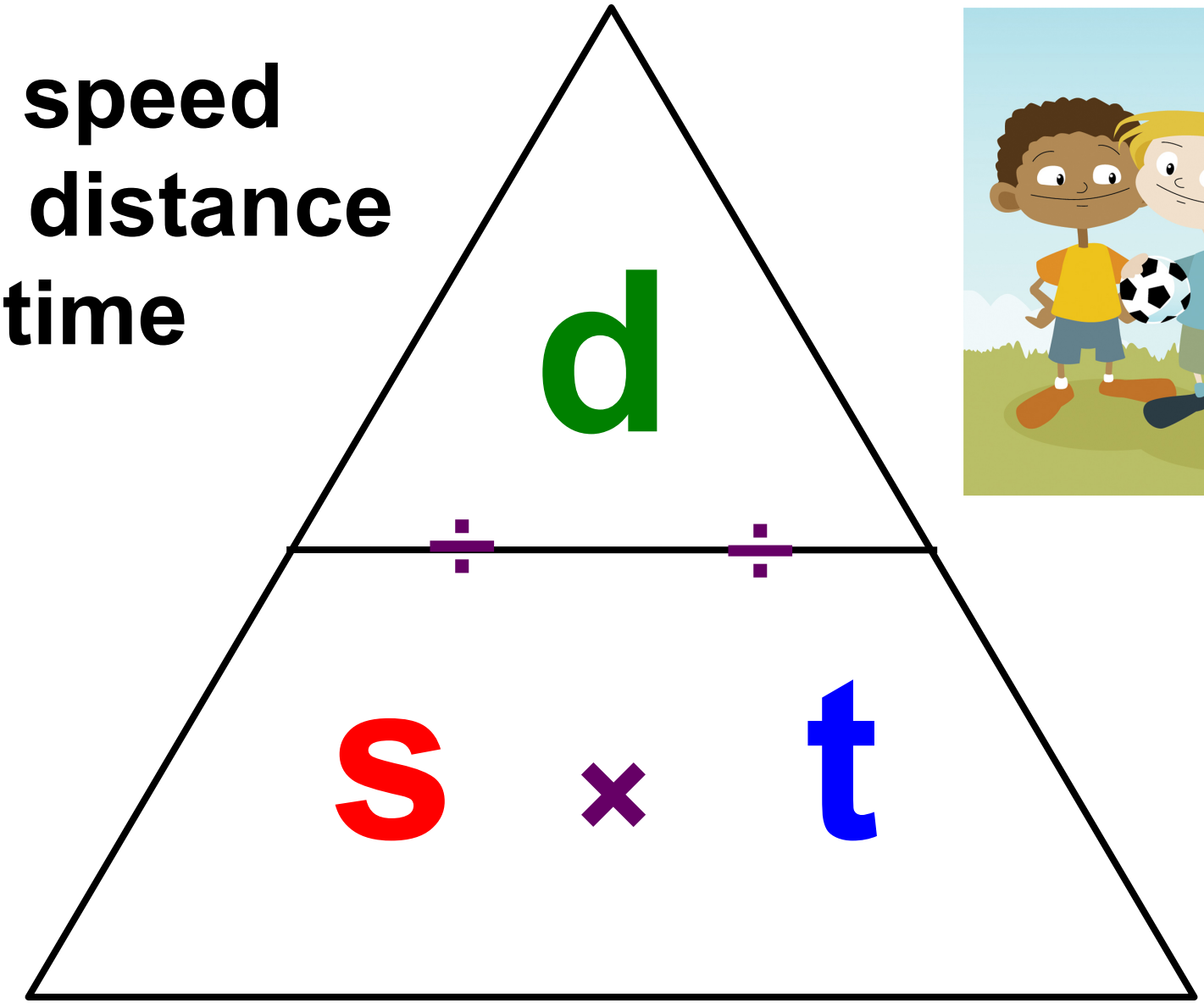
Reference Point
Site Location: http://www.classzone.com/books/ml_science_share/vis_sim/mfm05_pg7_relmotion/mfm05_pg7_relmotion.html

The Magic Triangle

s = speed

d = distance

t = time



The Speed Equation

Average Speed = total distance

total time

The Speed Steps

Imagine that a car traveled 100 meters in 5 seconds. What is the average speed of the car? Be sure to show all the steps!

Step 1:	Write down the equation.	
Step 2:	Write down what you know.	
Step 3:	Plug in your numbers.	
Step 4:	Do the math.	
Step 5:	Box your answer.	

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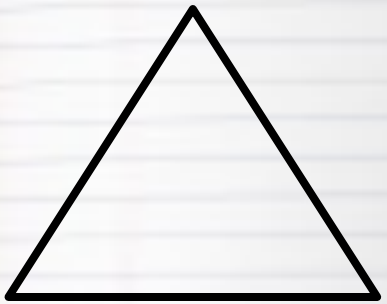
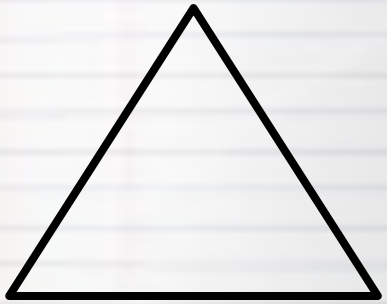
Speed it Up

10/4/16



speed =



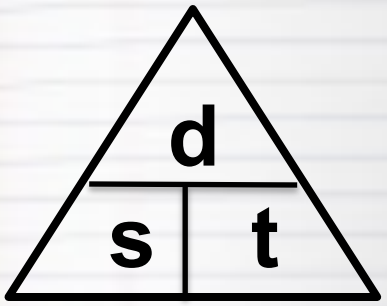
distance =

time =

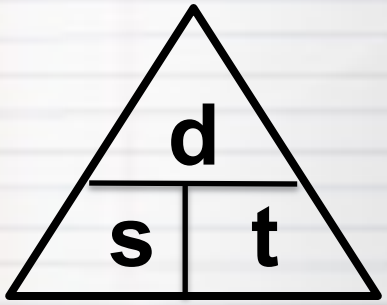
11R

Speed it Up

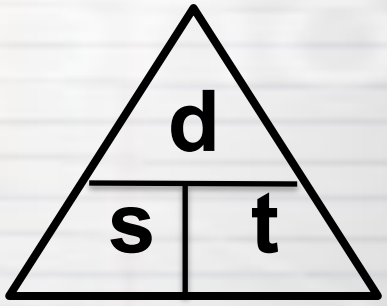
10/4/16



speed =



distance =

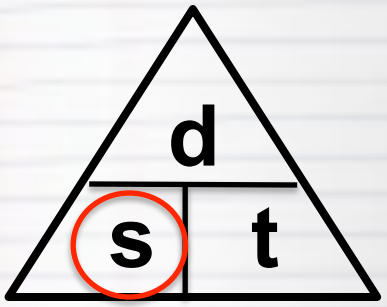


time =

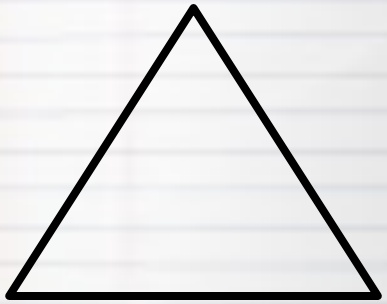
11R

Speed it Up

10/4/16



speed = distance / time



distance =

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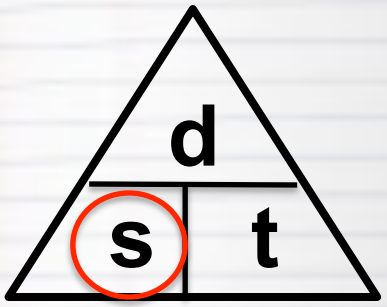
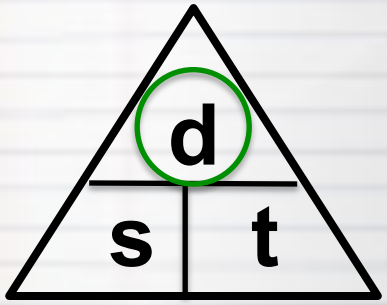
11R

Speed it Up

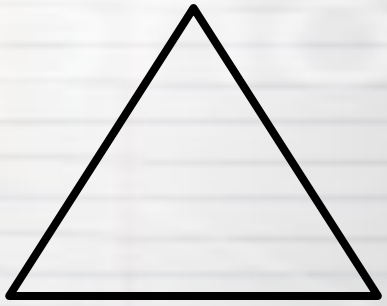
10/4/16



speed = distance / time



distance = speed × time

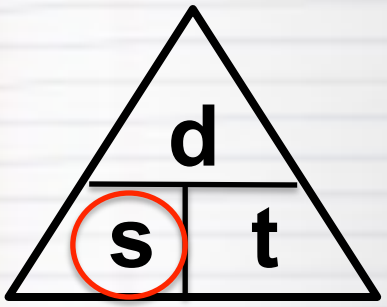


time =

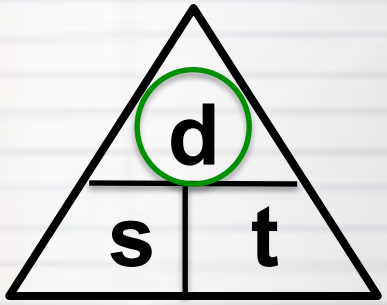
11R

Speed it Up

10/4/16



speed = $\frac{\text{distance}}{\text{time}}$



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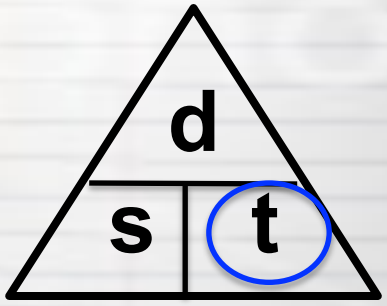


time = $\frac{\text{distance}}{\text{speed}}$

11R

10/4/16

Pre-Write:

The trash can is to the left of the light post. There is also a fence behind the light post. What is the reference point in that situation and why?

Reflection

In your own words, write the *definition* and *draw* a picture for the following words:

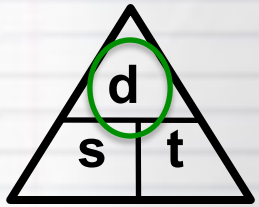
- position
- speed

11L

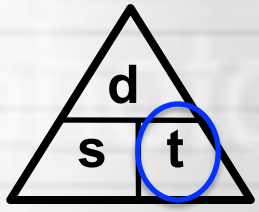
10/4/16

Speed it Up

$$\text{speed} = \frac{\text{distance}}{\text{time}}$$



$$\text{distance} = \text{speed} \times \text{time}$$



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11R