11/21/13   SETTING UP PROBLEMS
& SOLVING THEM

$$\text{SPEED} = \frac{\text{DISTANCE}}{\text{TIME}}$$

$$v = \frac{d}{t}$$

THE **5 STEPS** → WHAT YOU WILL **ALWAYS** USE TO SOLVE PROBLEMS.

1a) LIST WHAT YOU KNOW

1b) LIST WHAT YOU ARE TRYING TO FIND

2) WRITE OUT THE EQUATION YOU ARE GOING TO USE.

3) PUT THE VALUES YOU KNOW INTO YOUR EQUATION (BUT DON'T SOLVE)

4) SOLVE FOR YOUR UNKNOWN

5) CHECK YOUR WORK.
   - RESOLVE BY USING WHAT YOU JUST FOUND TO SEE IF YOU CAN SOLVE FOR & GET ONE OF THE ORIGINAL GIVEN VALUES.

Example: What Was Usain Bolt's Speed During The 100m Sprint? His Time Was 9.69 seconds.

1a) $d = 100m \quad t = 9.69 \text{ seconds}$

1b) $v = ?$

2) $v = \dfrac{d}{t}$

3) $v = \dfrac{100}{9.69}$

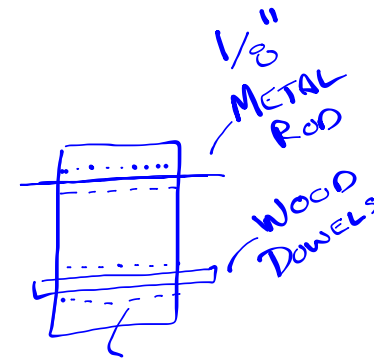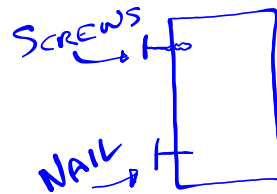4) $v = 10.3199174407$

$= \boxed{10.32 \ \dfrac{m}{s}}$

5) $v = \dfrac{d}{t}$

$9.69 \times 10.32 = \dfrac{d}{9.69} (9.69)$

$100.0008 = d$

✓ ☺

DERBY CONSTRUCTION
TIPS

- ASK TO SEE WHAT MATERIAL CAN BE USED.

- HOLE SAWS MAKE GOOD WHEELS

- TAKE TIME TO LINE-UP YOUR AXLES

- AXLE OPTIONS

SCREWS →

NAIL →

$1/8"$ METAL ROD

WOOD DOWELS

DRILL HOLE FOR AXLE WITH THE DRILL PRESS