Label-Factor/Conversion Problems

Name _____

Conversion Factors:

1 in = 2.54 cm	$1 \text{ cm}^3 = 1 \text{ ml}$
1 m = 100 cm	1 L = 1000 ml
1 mile = 1.6 km	1 hour = 60 minutes
1 mile = 5280 ft	1 minute = 60 seconds

- 1. Laurie high-jumped 5 feet 11 inches. How many meters is that?
- 2. Joe ran a 10.0 Km race in 32 minutes. How many miles/hour did he run?
- 3. Assume it takes a driver 0.60 seconds to hit the brakes after seeing a problem. How many feet does the car travel at 60.0 MPH during that time?
- 4. A snail is climbing a tree at 3.0 inches/min. How many hours before it reaches a limb 12 meters over its head?
- 5. Will 1.00 liter of milk overflow a cylindrical glass with a diameter of 2.4 inches and a height of 12 inches?
- 6. It takes 1.38 Canadian dollars to buy a US dollar. A US dollar will buy 122 yen in Japan. A Big Mac costs 290 yen. If you arrive in Japan with \$25 Canadian dollars, can you buy 10 Big Macs for you and your friends?

Answers:

- 1) 1.8 m
- 2) 12 mile/hr
- 3) 53 ft
- 4) 2.6 hr
- 5) yes (the cyclinder only holds 890 cm³ or 0.89 L)
- 6) no (you would need 2900 yen and only have 2200 yen you need \$33 Canadian to buy 10 big macs)