

Name: _____

Who did you work with: _____

Converting Between Metric and Imperial Units of Measurement

You and a friend have decided to make a trip to New York City!

After crossing the border you notice that everything is in Imperial units... Thankfully you remember what you learned in your Grade 10 math class and everything will be okay!

ANSWER QUESTIONS NEATLY AND IN FULL SENTENCES

- a. Your first issue arises when the border guard asks you how tall you are.
By this time in your life you are 5' 9" tall, but your license lists your height in cm!
The border guard is demanding you tell him your height in cm!
What is your height in cm? (1K, 2A, 1C)
- b. After getting through the border check you are on your way! But wait, the speed limits and distances are posted in miles per hour... The limit is 60 mph, and it is 395 miles to NYC.
- i. What is the speed limit in km/h? (1K, 1C)
- ii. How many km to NYC? (1K, 1C)
- iii. How long will it take you to get to NYC in hours and minutes if you drive the speed limit the whole way? (2A, 1C)

- c. Things just aren't working out for you! You are approaching a bridge with a set weight limit of 4000 lbs. Luckily your manual says your car weighs 1700 kg and you know that you and your friend combined weigh 300 pounds.
Can you cross the bridge? (1K, 2T, 1C)

- d. After all this math, you are thirsty and decide to stop for a drink and gas in Buffalo. You want a **can** of pop and your friend wants a **bottle**. The shop keeper does not like Canadians and demands that you specify how many fluid ounces of pop you would like. You remember that a can of pop in Canada holds 355 mL, and a bottle holds 591 mL. You also note that gas costs \$3.73/gal here and was 122.5 cents/L in Gravenhurst.

- i. How many fluid ounces of pop do each of you have to ask for?
(2K, 2C)

- ii Does gas cost more in Buffalo or in Gravenhurst? Show your work! (2A, 2T, 1C)

/6 K /6 A /8 C /4 T