

The Great Canadian Road Trip Challenge

Imputing Simple Variables into Formulas: A Practice Sheet

One of your biggest responsibilities for your Road Trip Challenge will be keeping track of your fuel costs! Here is a short worksheet that will help ensure you are up for the big adventure.

Remember, to maximize your grades, you must change the value of your variables on occasion (for example, you may choose to change your price of fuel when you reach a destination in Alberta). You will need to move your answer by 2 decimal places, as your calculator will give you this answer in cents.

Formula: Fuel Cost = liters per 100 kilometers x cost of fuel x distance in kilometers

1. What is your cost of fuel to travel the 847 kilometers between Vancouver, British Columbia and Banff, Alberta? You are driving a vehicle that uses 7 liters of fuel per 100 kilometers. Please assume that fuel is currently at 128.9 a liter. To correctly calculate this total, please input your fuel as 1.289.

- a. **Example:** $7.0 \times 1.289 \times 847 = 7,642.481$

The cost to travel between Vancouver and Banff in a will be approximately \$76.43.

2. What is your cost of fuel to travel the 501 kilometers between Tofino and Port Hardy? You are driving a vehicle that uses 9.1 liters of fuel per 100 kilometers. Please assume that fuel is currently at 131.9 a liter. Please show your work.

3. What is your cost of fuel to travel the 397 kilometers between Medicine Hat and Moose Jaw? You are driving a vehicle that uses 8.4 liters of fuel per 100 kilometers. Please assume that fuel is currently at 123.6 a liter. Please show your work.

4. What is your cost of fuel to travel the 950 kilometers between Whitehorse and Fort Nelson? You are driving a vehicle that uses 9.6 liters of fuel per 100 kilometers. Please assume that fuel is currently at 136.9 a liter. Please show your work.

5. What is your cost of fuel to travel the 572 kilometers between Regina and Winnipeg? You are driving a vehicle that uses 8.1 liters of fuel per 100 kilometers. Please assume that fuel is currently at 129.5 a liter. Please show your work.

Teacher's Answer Key

2. Tofino to Port Hardy

$$9.1 \times 1.319 \times 501$$

$$= 6,013.4529$$

$$= \$60.14$$

3. Medicine Hat to Moose Jaw

$$8.4 \times 1.236 \times 397$$

$$= 4,121.8128$$

$$= \$41.22$$

4. Whitehorse to Fort Nelson

$$9.6 \times 1.369 \times 950$$

$$= 12,485.28$$

$$= \$124.85$$

5. Regina to Winnipeg

$$8.1 \times 1.295 \times 572$$

$$= 5,999.994$$

$$= \$59.999$$

$$= \$60.00$$