CH. 7 Performance Task

Chapter 7 Performance Task

Task 1

The table below compares how many miles are traveled to how many gallons of gas are used for two different cars.

1. Complete the table for Car A and Car B below **(you will do Car C in step 3)**.

Gas (gallons)	Distance for Car A (miles)	Distance for Car B (miles)	Distance for Car C (miles)
0	0	0	0
3	90	54	60
5	150	90	100
6	180	108	120
10	300	180	200
12	360	216	240

2. Which car can travel the farthest on 5 gallons of gas? How do you know?

Car A because it gets more miles per gallon (30 vs. 18).

3. Car C uses 6 gallons of gas to travel 120 miles. In the column for Car C complete the other five ratios of gallons and miles.

Task 2

Car makers often advertise the miles per gallon, or MPG, for the cars they make. The measurement is a special kind of rate called a **unit rate**, because it is the mileages for one unit (one gallon) of gasoline.

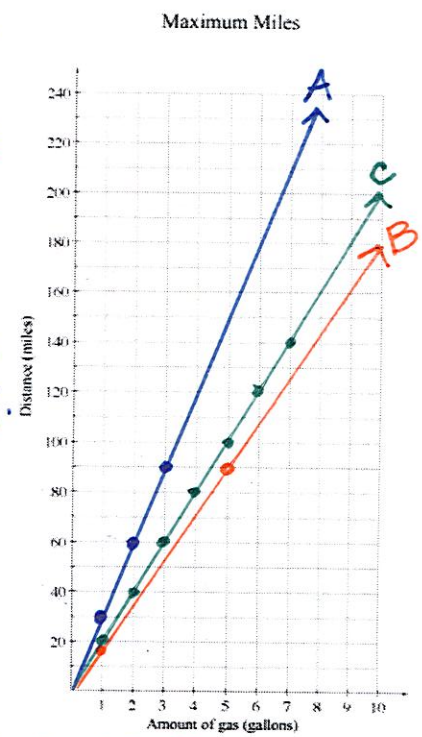
1. Calculate the unit rate (MPG) for each car in the table (task 1). List the cars in order from highest MPG to lowest. Explain how you made this calculation.

A, C, B   I divided miles by gallons to get mpg for each car.

2. Using the graph below, graph the distance and gallons of gas used for all three cars. Remember to label your lines for each car.

3. How can the graph help us to compare the unit rate (miles per gallon) of the different cars?

By looking at how steep each line is, we can see which car gets the most mpg. The steeper the line, the higher the unit Rate.



ront
Rate
= 20mpg (ca
0mi on 3g
0mi on 5g
0mi on 10ga
= 240 on 12g
al
above.

TASK 1 WORK :

Unit Rate

1) 150 ÷ 5 = 30 mpg (Car A)

30 × 3 = 90 mi on 3 gal.

30 × 10 = 300 mi on 10 gal.

30 × 12 = 360 mi on 12 gal.

Unit Rate

54 ÷ 3 = 18 mpg. (Car B)

18 × 5 = 90 mi on 5 gal.

18 × 6 = 108 mi on 6 gal.

180 + 2(18) = 180 + 36 = 216 mi on 12 gal

2) Front

Unit Rate

3) 120 ÷ 6 = 20 mpg. (car C)

20 × 3 = 60 mi on 3 gal.

20 × 5 = 100 mi on 5 gal.

20 × 10 = 200 mi on 10 gal.

200 + 40 = 240 on 12 gal

TASK 2 WORK :

1) Unit Rate for each car calculated above.

2) Graph on Front

3) On Front