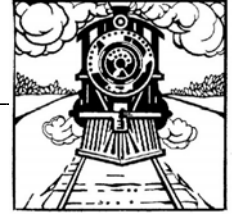


All Aboard!

Name _____



The Simpsons – Season 1 – Bart the Genius

Directions: Help Bart solve the following math problems. Show all work.

1. At 7:30 AM, an express train traveling 60 miles an hour leaves Santa Fe bound for Phoenix, 520 miles away. At the same time, a local train traveling 30 miles an hour and carrying 40 passengers leaves Phoenix bound for Santa Fe.
 - a.) In hours and minutes, how long will it take the express train to reach Phoenix?

 - b.) In hours and minutes, how long will it take the local train to reach Santa Fe? .

 - c.) Assume that the trains are traveling on adjacent train tracks and travel the same distances between Phoenix to Santa Fe. To the *nearest tenth of an hour*, after how many hours will the two trains be at the same location?

2. The local train, carrying 40 passengers, leaves Phoenix at 7:30 bound for Santa Fe. It's eight cars long and always carries the same number of passengers in each car. At the first stop, an hour after leaving Phoenix, a number of passengers equal to half the number of minutes past the hour get off, but three times as many plus six get on.
 - a.) How many passengers are in each car as the train leaves Phoenix?

 - b.) How many passengers get off the train at the first stop?

 - c.) How many passengers get on the train at the first stop?

 - d.) How many passengers are now on the train as it leaves its first stop?

3. At the second stop, half the passengers plus two get off, but twice as many get on as got on at the first stop.
 - a.) How many passengers get off the train at the second stop?

 - b.) How many passengers get on the train at the second stop?

 - c.) How many passengers are now on the train as it leaves its second stop?



4. Bart visualizes himself being caught as a stowaway on the train. He tells the Engineer that he will pay his fare and asks how much the fare will be. The engineer replies: "Twice the fare from Tucson to Flagstaff, minus two-thirds of the fare from Albuquerque to El Paso." If the fare from Tucson to Flagstaff is \$65.80 and the fare from Albuquerque to El Paso is \$84.90, find Bart's fare.



5. In the dining car, Bart sees that the cost of each dessert seems to be in terms of the other desserts. Find the actual cost of each of the desserts.

Club Car Desserts	Description	Actual Cost
Pie	\$1.20	\$1.20
Cake	Twice the pie minus a cookie	
Cookie	$\frac{2}{3}$ the pie	
Duo Twinkies	$\frac{1}{5}$ the cookie plus $\frac{3}{4}$ the cake	
Pudding	$\frac{1}{6}$ the pie plus $\frac{1}{2}$ the cookie	
Jello	$\frac{7}{8}$ the cookie	

6. The engineer on the train is shoveling numbers from the floor into the engine instead of coal. The numbers lying on the floor are the missing values from the following patterns. Fill in the blanks for each pattern of numbers.

- 20, 24, 28, ____, ____, ____, ____, ____
- 10, 13, 16, ____, ____, ____, ____, ____
- 3, 8, 13, 18, ____, ____, ____, ____, ____
- 35, 43, 51, ____, ____, ____, ____, ____
- 19, 17, 15, ____, ____, ____, ____, ____
- 3, 9, 27, 81, ____, ____, ____, ____, ____
- -2, -4, -8, -16, ____, ____, ____, ____, ____
- 1, 3, 6, 10, 15, ____, ____, ____, ____, ____
- 1, 4, 9, 16, 25, 36, ____, ____, ____, ____, ____
- 0, 1, 1, 2, 3, 5, 8, 13, ____, ____, ____, ____, ____