

### Taxi Cab Problem – Practice Test Versions

Four friends used the same taxi service to meet at a restaurant for dinner. When they arrived at the restaurant, they compared their cab fare and tried to figure out a rule that the taxi company used to calculate cost.

Passenger	Distance (in miles)	Cost
Denise	1	\$4.50
Mark	6	\$12
Solange	3	\$7.50
Kate	8	\$15

- 1) Which linear function models the relationship between the number of miles driven,  $m$ , and the cost of the cab ride,  $C$ ?
  - a)  $C = 4.5m$
  - b)  $C = 2.5m$
  - c)  $C = 1.5m + 3$
  - d)  $C = 3m + 1.50$
  
- 2) Which linear function models the relationship between the number of miles driven,  $m$ , and the cost of the cab ride,  $C(m)$ ?
  - a)  $C(m) = 4.5m$
  - b)  $C(m) = 2.5m$
  - c)  $C(m) = 1.5m + 3$
  - d)  $C(m) = 3m + 1.50$

Four friends used the same taxi service to meet at a restaurant for dinner. When they arrived at the restaurant, they compared their cab fare and figured out they could calculate the cost of a ride using the following function:  $C = 1.5m + 3$ , where  $m$  is the number of miles traveled and  $C$  is the cost of the ride.

Passenger	Distance (in miles)	Cost
Denise	1	\$4.50
Mark	6	\$12
Solange	3	\$7.50
Kate	8	\$15

- 3) Which statement is true about the cab fare?
- The ride costs \$4.50 for each mile.
  - The ride costs \$3.00 for each mile driven plus \$1.50
  - For each 10 miles driven, the cab ride costs \$18.00
  - The ride costs \$1.50 for each mile plus a flat fee of \$3.00
- 4) Halfway through the meal, Isabel arrives. She used the same taxi service and paid \$22.50 for the ride.

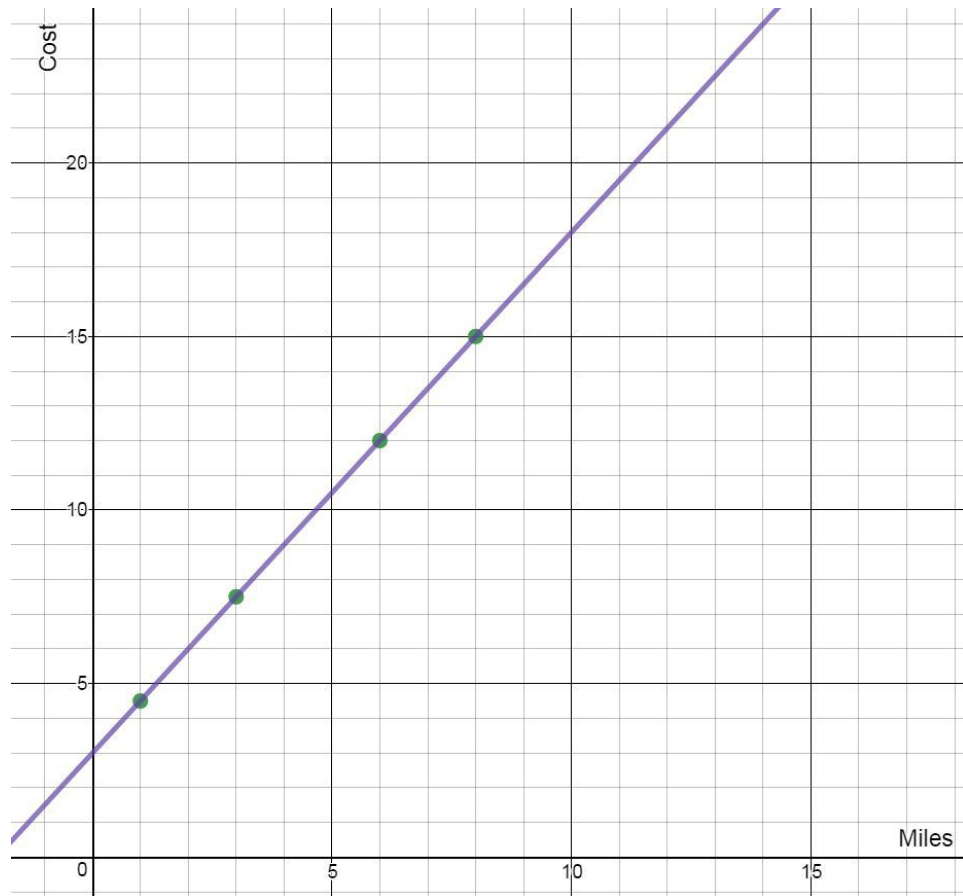
What distance did she travel?

- 5) A taxi company uses the function  $C(m) = 1.5m + 3$  to calculate the cost of a taxi ride.
- $C(m)$  is the total cost (in dollars) of the ride
  - $m$  is the number of miles traveled

What do the values 1.5 and 3 represent in the function?

- The cost to ride a taxi 3 miles is \$1.50.
- The cost to ride a taxi 1.5 miles is \$3.00.
- The cost of a taxi is \$1.50 plus \$3.00 per mile.
- The cost of a taxi is \$3.00 plus \$1.50 per mile.

- 6) Four friends used the same taxi service to meet at a restaurant for dinner. The graph to the right shows the distance traveled, in miles, and the cost of each friends' ride.



If  $C$  is the cost of a ride that is  $m$  miles, which function can be used to calculate the cost of a taxi ride?

- a)  $C = 4.5m$
  - b)  $C = 2.5m$
  - c)  $C = 1.5m + 3$
  - d)  $C = 3m + 1.50$
- 7) How much would it cost to ride for 10 miles?