

Family Vacation Multiplication

The Smiths are going on a family vacation. Use multiplication, addition, and subtraction to solve the following problems. Perform other operations as needed to help find the answers. Show your work.

Driving to the airport, the Smiths needed to fill up on gasoline. Gasoline costs 3 dollars for one gallon. If their tank holds 16 gallons, and they already have 3 gallons filled, how much money will it cost to fill the car's tank completely?

$$(16 \text{ gallons} - 3 \text{ gallons}) = 13 \text{ gallons}$$
$$13 \times \$3 \text{ per gallon} = \$39$$

It cost \$39 to fill the tank completely.

The Smiths want to visit a museum and must pay to park. They are going to be gone for 4 hours. The price of parking is as follows:

- 1 Quarter = 15 minutes
- 1 Dime = 5 minutes
- 1 Nickel = 2 minutes

The Smiths have 8 quarters, 12 dimes and 14 nickels. Do they have enough to park for 4 hours? (Remember: 60 minutes = 1 hour)

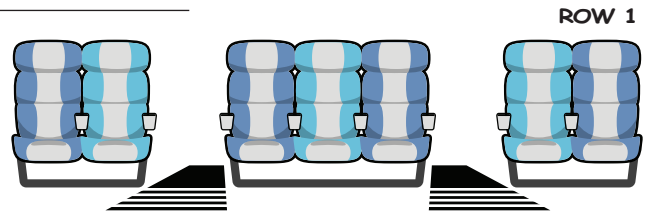
$$15 \text{ min.} \times 8 \text{ quarters} = 120 \text{ min.}$$
$$5 \text{ min.} \times 12 \text{ dimes} = 60 \text{ min.}$$
$$2 \text{ min.} \times 14 \text{ nickels} = 28 \text{ min.}$$
$$120 + 60 + 28 = 3 \text{ hours} \& 28 \text{ min.}$$

The Smiths do not have enough money to park for 4 hours.

The Smiths board the airplane to head back home. The flight attendant wants to count how many passengers are on board. Every row consists of 2, 3, and 2 seats each (see picture below). If there are 51 horizontal rows, and 13 seats are empty, how many passengers are on board?

$$51 \text{ rows} \times 7 \text{ seats} = 357 \text{ seats total}$$
$$357 - 13 = 344$$

There are 344 passengers on board.



In total, the Smiths were flying in an airplane for 14 hours. If the airplane cruises at approximately 512 miles per hour, about how many miles did they travel all together?

$$14 \text{ hours} \times 512 \text{ miles} = 7,168$$

They traveled 7,168 miles.

