

# Codingal

## Solving Linear Equations in Real-World Problems

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Question: John has 3 boxes of pencils. Each box contains  $x$  pencils. If the total number of pencils is 21, how many pencils are in each box?

Equation:  $3x = 21$

Choose the correct answer:

Question: A bus carries 5 passengers. Each passenger pays  $\$x$ . If the total fare collected is  $\$50$ , how much does each passenger pay?

Equation:  $5x = 50$

Choose the correct answer:

Question: Maria buys 4 identical pens. If the total cost is  $\$12$ , how much does each pen cost?

Equation:  $4x = 12$

Choose the correct answer:

Question: A rectangle has a perimeter of 42 meters. The length is 3 meters longer than the width. Find the width of the rectangle if  $w$  represents the width.

Equation:  $2w + 2(w + 3) = 42$

Choose the correct answer:

Question: A bike rental company charges a fixed fee of  $\$15$  plus  $\$5$  per hour. If the total cost for 4 hours of rental is  $\$35$ , find how much they charge per hour.

Equation:  $15 + 5x = 35$

Choose the correct answer:

Question: Tom spends  $\$x$  on 6 packs of juice. The total cost is  $\$18$ . How much does one pack cost? Equation:  $6x = 18$

Choose the correct answer:

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Question: Sarah has  $\$x$ . She spends  $\$5$  on lunch and still has  $\$20$  left. How much money did she have initially?

$$\text{Equation: } x - 5 = 20$$

Choose the correct answer:

Question: A car rental company charges  $\$25$  per day plus  $\$0.50$  per mile driven. If the total cost for a day's rental is  $\$40$ , and the car was driven  $x$  miles, find how many miles were driven.

$$\text{Equation: } 25 + 0.5x = 40$$

Choose the correct answer:

Question: A family of 4 people went to the zoo. The entry ticket is  $\$x$  for each person, and they spent a total of  $\$100$ . If they also spent  $\$60$  on food, how much was the ticket price?

$$\text{Equation: } 4x + 60 = 100$$

Choose the correct answer:

Question: A container holds  $x$  liters of water. After 12 liters are poured in, the total is 35 liters. How many liters did the container initially hold?

$$\text{Equation: } x + 12 = 35$$

Choose the correct answer: