

Writing Equations for Real-Life Scenarios-- Conclusion Questions

Read each scenario and identify the following. Show your work for the conclusion questions.

1. Tim, the plumber, charges \$40 for him to show up at your house, plus an additional \$25 hourly fee.

X represents _____ Y represents _____ Equation: _____

Rate of change (slope): _____ Initial Value (Y-intercept): _____

Conclusion questions:

- A. How many hours of service can you get with \$100?

- B. What is the total cost for 5 hours of service?

2. Plaza Fitness gym has a \$20 sign-up fee, plus an additional \$15 monthly fee.

X represents _____ Y represents _____ Equation: _____

Rate of change (slope): _____ Initial Value (Y-intercept): _____

Conclusion questions:

- A. What is the total cost of having a gym membership for a year?

- B. Sunshine Fitness has a \$30 sign-up fee and a \$10 monthly. What is the total cost for having a gym membership with them for a year?

- C. Which gym offers the better deal for a one year membership?

3. Ben deposits \$55 into a new savings account. He withdraws \$5 everyday for his morning coffee.

X represents _____ Y represents _____ Equation: _____

Rate of change (slope): _____ Initial Value (Y-intercept): _____

Conclusion questions:

- A. How much money is in Ben's savings account after 5 days?

4. A plane is flying at an altitude of 8,500 feet above sea level. It starts to descend at a rate of 500 feet per minute.

X represents _____ Y represents _____ Equation: _____

Rate of change (slope): _____ Initial Value (Y-intercept): _____

Conclusion questions:

A. How long will it take the plane to land?

B. If the plane were descending 600 feet per minute, how long would it take the plane to land?

5. Movie Mania has a \$25 sign-up fee, with an additional \$10 monthly fee.

X represents _____ Y represents _____ Equation: _____

Rate of change (slope): _____ Initial Value (Y-intercept): _____

Conclusion questions:

Kelly believes Movie Mania is more expensive than Movies-R-Us. Movies-R-Us does not have a sign-up fee. They charge a \$12 monthly fee.

A. Which movie company has the better deal for one year of service?
Show your work:

B. Which movie company has the better deal for two years of service?
Show your work:

6. Student senate is having a fundraiser. They plan to buy the fundraiser candy grams from Oriental Trading. The amount of money they make is computed using the equation $y = 4.5x - 60$, where x represents the number of candy grams sold.

Conclusion Questions:

A. What does the number 60 represent in the context of this problem?

B. What does the slope represent in the context of this problem?