5.4 Modeling with Equations

CA #1

Name:_____

Directions: Circle the equation that best fits the given situation. Then SOLVE the equation.

1) Cliff Clavin has delivered 5 packages today already. He hopes to deliver three packages every hour for the rest of the day. How long until he has delivered all 20 packages he has?

a. $20 = 5h + 3$

c. $20 = 5(h + 3)$

b. $20 = 3(h + 5)$

d. $20 = 3h + 5$

Solution:

2) Carla made \$22 on Wednesday in tips and some more money on Thursday. She hopes to triple her total from those two days on Friday night and make \$120. How much money did she make in tips on Thursday?

a. $3x + 22 = 120$

c. $22x + 3 = 120$

b. $3(x + 22) = 120$

d. $3(x - 22) = 120$

Solution:

Directions: For each situation make an equation, define your variables and solve your equation.

3) Phoebe Buffay sings on the street with her guitar. She starts the day off with \$5.00 in her guitar case. As the day goes on people walking by the street toss more money in. She averages \$20 an hour. How many hours singing does she need to have made \$105?

Equation: **Answer:**

4) Pam needs to buy party supplies for Michael's Moroccan Christmas Party. She spent \$25 on decorations and is going to pay \$2.50 for party favors. How many party favors can she buy if her budget for the party is \$80?

Equation: **Answer:**

5) Last week Andy Dwyer sold 14 CD's and some cassette tapes of his band Mouse Rat's newest album. This week he hopes to sell 60 total albums which would be 4 times as many as he sold last week. How many cassette tapes did he sell last week?

Equation: **Answer:**

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Corrective Assignment Answers

1) D; 5 hours

2) B; $18

3) $5 + 20h = 105$; 5 hours

4) $25 + 2.50p = 80$; 22 party favors

5) $4(14 + c) = 60$; 1 cassette tape