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

1) Dr. Meredith Grey treated 10 patients on Wednesday and some more on Thursday. She knows that Friday will be busy and expects to treat 50 patients, which is double the previous two days. How many patients did she treat on Thursday?

a.
$$50 = 2h + 10$$

c.
$$50 = 2(h + 10)$$

b.
$$50 = 10(h + 2)$$

d.
$$50 = 10h + 2$$

Solution:

2) Daenerys Targaryen has destroyed 3 villages on her way to taking the Iron Throne. She believes she'll destroy 2 more villages every day and will only need to destroy 17 before she becomes Queen. How many days will it take for her to become Queen?

a.
$$2x + 3 = 17$$

c.
$$3x + 2 = 17$$

b.
$$2(x + 3) = 17$$

d.
$$3(x + 2) = 17$$

Solution:

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

3) The past two months have not been great for Phil Dunphy. He sold 2 houses in September and not many more in October. He vows to TRIPLE the total of houses sold those two months by selling 18 houses in November. How many houses did he sell in October?

Equation:

Answer:

4) George Constanza is looking to make some extra money. His good friend Kramer tells him that if George gives him \$50 he can guarantee he'll make \$30 every week in some grand plan. How many weeks will it take for George to make \$250?

Equation:

Answer:

5) Jake Peralta, the greatest detective working at the 99^{th} precinct, has caught 60 criminals this month. He hopes to set the record of 123 criminals caught in a month though. If he catches 7 more criminals a day, how many days will it take him to set the record?

Equation:

Answer:

5.4 Modeling with Equations

Corrective Assignment Answers

- 1) C; 15 patients
- 2) A; 7 days
- 3) 3(2 + h) = 18; 4 houses
- 4) -50 + 30w = 250; 10 weeks
- 5) 60 + 7d = 123; 9 days