Word Problems – Worksheet #1

Please choose the correct representation for each situation.

1) Joe buys 9 CDs for the same price, and also a cassette tape for $9.45. His total bill was $118.89. Use “x” to represent the cost of one CD.

   A  \[ 9x - 118.89 = 9.45 \]
   B  \[ 9x + 9.45 = 118.89 \]
   C  \[ 118.89 + 9x = 9.45 \]
   D  \[ 9x - 9.45 = 118.89 \]

   [Answer: B]

4) Andrew buys 4 books for the same price, and also a video for $18. His total bill was $110. Use “b” to represent the cost of one book.

   A  \[ 4b = 110 \]
   B  \[ 18b + 4 = 110 \]
   C  \[ 4b + 18 = 110 \]

   [Answer: A]

2) A shoebox with a pair of shoes in it weighs 3.9 Kg. The box weighs 0.8 Kg when empty. Use “y” to represent the weight of one shoe.

   A  \[ 2y - 0.8 = 3.9 \]
   B  \[ y + 0.8 = 3.9 \]
   C  \[ 2(y + 0.8) = 3.9 \]
   D  \[ 2y + 0.8 = 3.9 \]

   [Answer: D]

5) Ann has $300 to spend. He gets a game system for $85 and games cost $12 each. Use “g” to represent how many games he can buy.

   A  \[ 85 + 12g \leq 300 \]
   B  \[ 85 - 12g = 300 \]
   C  \[ 300 - 85g < 12 \]
   D  \[ 12g \leq 300 \]

   [Answer: A]

3) Sally needs to have sold 200 magazines by the end of the week to get a prize. She’s only sold 88 so far, and there are only 5 days left. Use “m” to represent the number of magazines she should sell daily.

   A  \[ 200 + 88 < 5m \]
   B  \[ 5m + 88 \geq 200 \]
   C  \[ 88 - 5m > 200 \]

   [Answer: C]

6) Li has $500 in her account, and spends $45 a week on food. If she falls below $20 in her account, she must pay a penalty. Use “k” to represent how many weeks without paying the penalty.

   A  \[ 20 + 500 > 45k \]
   B  \[ 20k + 45 < 500 \]
   C  \[ 500 - 45k \geq 20 \]

   [Answer: C]
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For each situation, write a word model AND a math sentence.

7) Jackie has $200 to spend. She buys a clock for $66, and wants to spend the rest on picture frames marked at $15 each. How many picture frames can she afford?

Word Model: \[
\text{Cost of clock PLUS cost of frames \ NO MORE THAN available money}
\]

Math Sentence: \[66 + 15f \leq 200\]

8) Too Tall Billy must be at least 73 inches tall to ride on the rollercoaster. Too Tall Billy is currently only 39 inches tall, but will be growing an average of 6 inches each year. How many years until he can ride the rollercoaster?

Word Model: \[
\text{height now PLUS growth AT LEAST required height}
\]

Math Sentence: \[39 + 6y \geq 73\]

9) Zachary wants to buy a new TV that costs $1664. He currently has $500 in his bank account, but plans to save an additional $60 each week. How many weeks until he has enough money to buy the TV?

Word Model: \[
\text{current money PLUS saving new money AT LEAST cost of TV}
\]

Math Sentence: \[500 + 60w \geq 1664\]

10) Bill currently weighs 225 lbs., but intends to go on a diet that promises to make him lost 8 lbs. each month. How many months until he is under his target weight of 150 lbs.?

Word Model: \[
\text{current weight MINUS lost weight UNDER target weight}
\]

Math Sentence: \[225 - 8m < 150\]