Modelling with Linear Equations

Feb 19/2010

Write a system of equations to model each of the following situations (do not solve):

1. The sum of two numbers is 72. Their difference is 48. Find the numbers.

Let x and y represent the numbers
$$x+y=72$$

 $x-y=48$ or $y-x=48$

Feb 18-10:58 PM

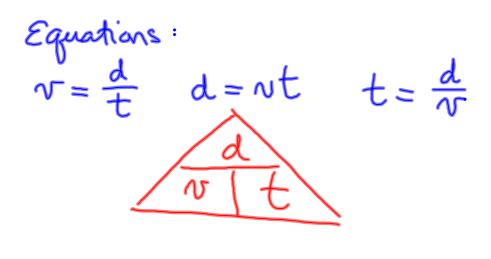
2. Bert earns an hourly wage plus tips. One week he worked 12h and made a total of \$117. The next week he worked 10h and earned the same amount in tips as the week before, for a total of \$110. What is Bert's hourly wage?

Let trepresent tips
Let w represent howly wage

$$12\omega + t = 117$$

 $10\omega + t = 110$

3. Ernie drove at a speed of 50 km/h from Ancaster to Ottawa. From Ottawa to Kingston, he drove 80 km/h. If the whole trip was 550 km and it took 8h, what is the distance from Ottawa to Kingston?



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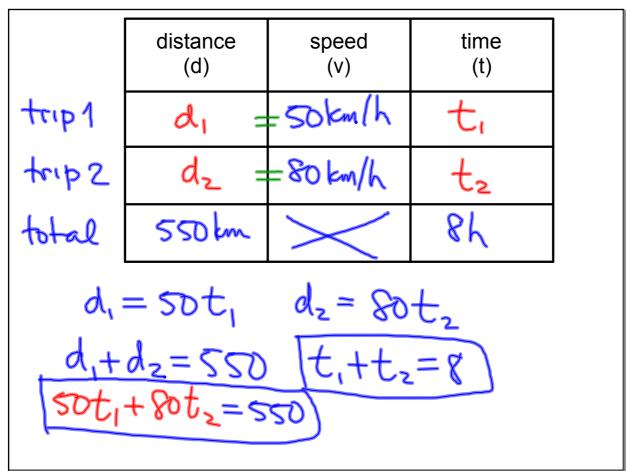
3. Ernie drove at a speed of 50 km/h from Ancaster to Ottawa. From Ottawa to Kingston, he drove 80 km/h. If the whole trip was 550 km and it took 8h, what is the distance from Ottawa to Kingston?

distance speed time (v) (t)

trip1 d₁ sokm/h t₁

trip2 d₂ 80km/h t₂

total 550km 8h



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Find a partner and do p. 50 # 10, 13, 15, 17, 24.

DO NOT SOLVE!

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Assigned Work:

write a system of equations for each of the following, but DO NOT SOLVE:

p.51 #11, 14, 19, 21, 23, 28, 33.

using some of the ideas in the previous problems, do

p. 53 # 30 **

Feb 16 - 2:27 PM