

Math 80 Quiz #2 Answers

1. **Unknown:** Time it takes for Betty to be 100 feet ahead = t

Equation: Here are some possibilities (All are correct):

$$44t + 100 = 52t$$

$$52t - 44t = 100t$$

$$52t - 100 = 44t$$

(Note: Distance traveled by Ann = $44t$ Distance traveled by Betty = $52t$)

Answer: $t = \frac{25}{2}$ or 12.5 seconds

It will take 12.5 seconds.

2. (a) Since the car is traveling at 20 mph from 5 seconds to 30 seconds after the start of the trip, it is traveling at 20 mph for 25 seconds.
- (b) The car is going 30 mph at that time.
- (c) The car starts going 50 mph after 45 seconds.
3. You can use any three points that are solutions to the equation. For simplicity, I am choosing to use the values $x = 0$, $x = 3$, $x = -3$ and find the corresponding y -value to complete the ordered pair.

This gives me the three points: $(0, 2)$, $(2, 1)$, $(-3, 3)$

