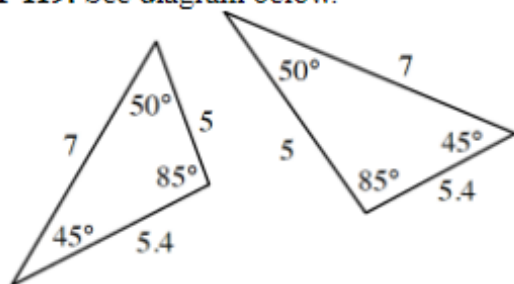


11-117. See below:

- The slope of the line of best fit is -75.907 . Jeremiah had been giving coins away at a rate of about 76 coins a year.
- In 2010 he had 1295 coins. If c is the number of coins, and y is the number of years since 2010, then $c = 1295 - 76y$. When $c = 0$ coins, $y \approx 17$ years from now. In 2027 he will have only 3 coins left.

11-118. 9.33 minutes; Given precision of measurement, Roger Robot would take approximately 9 minutes working alone.

11-119. See diagram below.



11-120. See below:

- 4, 8, 12, 16; $t(n) = 4 + 4(n - 1)$
- 4, 8, 16, 32; $t(n) = 4(2)^{n-1}$
- Answers vary.

11-121. $0.50c + 0.75b \geq 100$

11-122. Let a = the number of adult tickets; Let c = the number of children tickets.
 $2a + 3c = 27.75$, $3a + 2c = 32.25$, $a = \$8.25$, $c = \$3.75$

11-123. Yes, they will intersect; top line: $y = -\frac{1}{4}x + 10$, bottom line: $y = \frac{1}{3}x + 3$; they will cross at (12, 7).

11-124. top line: x -intercept (40, 0) and y -intercept (0, 10); bottom line: x -intercept (-9, 0) and y -intercept (0, 3)

11-125. See graph below.

