

Name:.....N^o:.....course:.....1^a) Solve for x:

a) $3(2x - 2) - 4(3x - 3) = 7x - 14$

b) $\frac{x}{9} - \frac{x}{3} = \frac{x+1}{7} - 10$

2^a) A 555-mile, 5-hour plane trip was flown at two speeds. For the first part of the trip, the average speed was 105 mph. Then the tailwind picked up, and the remainder of the trip was flown at an average speed of 115 mph. For how long did the plane fly at each speed?

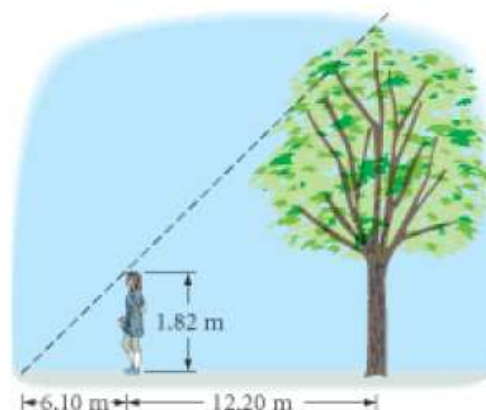
3^a) How many litres of a 70% alcohol solution must be added to 50 litres of a 40% alcohol solution to produce a 50% alcohol solution?

4^a) A total of 925 tickets were sold for \$5,925. If adult tickets cost \$7.50, and children's tickets cost \$3.00, how many tickets of each kind were sold?

5^a) The sum of two numbers is 46. The difference of their squares is 92. Find these two numbers. Write the equations and solve it.

6^a)

Juanita, who is 1.82 meters tall, wants to find the height of a tree in her backyard. From the tree's base, she walks 12.20 meters along the tree's shadow to a position where the end of her shadow exactly overlaps the end of the tree's shadow. She is now 6.10 meters from the end of the shadows. How tall is the tree?



- 7^o) A) Find the image point of $P(4, -5)$ under a translation with vector $\vec{v} = (-6, 7)$
 B) Find the translation vector if point $P(-3, 8)$ is translated to $P'(9, -1)$

1	2	3	4	5	6	7
1,5 p	2p	1p	1,5	2	1	1