

Solutions

$$4) \quad 0.4n + 8^{-8} = 25^{-8}$$

$$0.4n = 17$$

$$\frac{0.4n}{0.4} = \frac{17}{0.4}$$

$$n = 42.5$$

∴ Joe can use 42 plants in his test plot.

$$5) \quad C = x + 0.06x + 0.08x + 0.15x$$

$$= 45 + 0.06(45) + 0.08(45) + 0.15(45)$$

$$= 45 + 2.70 + 3.60 + 6.75$$

$$= 58.05$$

∴ Bria spends \$58.05 on her haircut.

$$6) \quad a) \quad 0.03x + 0.1(200 - x) = 0.05(200)$$

$$0.03x + 20^{-20} - 0.1x = 10 - 20$$

$$0.03x - 0.1x = -10$$

$$(0.03 - 0.1 = -0.07)$$

$$-0.07x = -10$$

$$\frac{-0.07x}{-0.07} = \frac{-10}{-0.07}$$

$$x = 142.86$$

b) This means that the mixture contains about $(200 - 143)$ L or 57 L of cream.

∴ About 143 L of milk are used.