

Part 1 Solve for x. Show all your steps.

1. $\frac{x-2}{3} = \frac{x+2}{5}$

2. $\frac{x-2}{x+3} = \frac{3}{4}$

5. $\frac{x}{\frac{1}{3}} = \frac{\frac{7}{10}}{\frac{3}{10}}$

6. $\frac{\frac{1}{2} + \frac{1}{5}}{x} = \frac{7}{10}$

3. $\frac{2x-9}{4x} = \frac{x-3}{2x+1}$

4. $\frac{3x-2}{5} = \frac{2x+3}{7}$

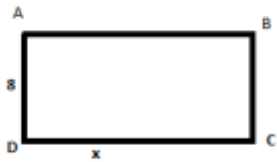
7. $\frac{9}{x+1} = \frac{10}{x+2}$

8. $\frac{5-x^2}{x^2} = \frac{1}{4}$

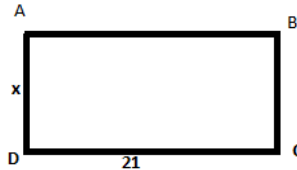
Part 2.

In questions 9 and 10 the ratio **AD: DC** is **4:7**. Use a proportion to **solve for x**.

9.

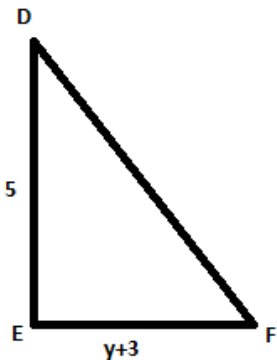


10.

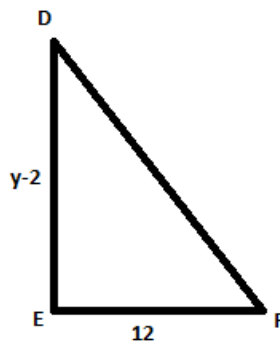


In questions 11 and 12 the ratio **DE: EF** is **2:3**. Use a proportion to **solve for y**.

11.



12.



13. In the figure below $AB = 8$ cm and $\frac{AM}{MB} = \frac{3}{7}$. Find the length of segment AM.

