

SA simulation

① Simplify :

$$\begin{aligned} & (2x - 3)(x^2 + 2x - 7) = \\ & = 2x^3 + 4x^2 - 14x - 3x^2 - 6x + 21 \\ & = 2x^3 + x^2 - 20x + 21 \end{aligned}$$

② Solve the Linear equation

$$\frac{2x - 5}{5} = \frac{7x + 1}{4}$$

$$4(2x - 5) = 5(7x + 1)$$

$$8x - 20 = 35x + 5$$

$$8x - 35x = 5 + 20$$

$$-27x = 25$$

$$x = -\frac{25}{27} = -1\frac{1}{9}$$

③ When a number is added by 6 and the result is divided by 3, the result is 4 greater than the original. Find the number.

x is a number

$$\begin{aligned} \rightarrow \frac{x + 6}{3} &= 4 + x & \left. \begin{array}{l} -2x = 6 \\ x = -3 \end{array} \right\} \\ x + 6 &= 12 + 3x \\ x - 3x &= 12 - 6 \end{aligned}$$

④ Given the function $f(x) = -4x + 7$.

If the value of the function is -17 , find x .

$$f(x) = -4x + 7$$

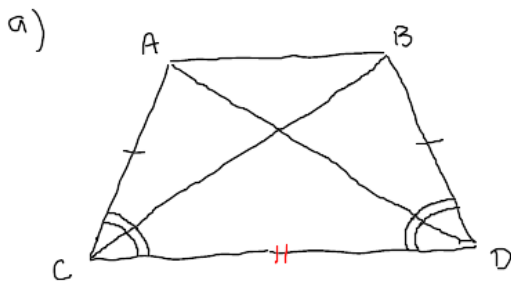
$$-17 = -4x + 7$$

$$4x = 7 + 17$$

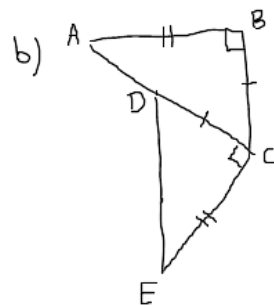
$$4x = 24$$

$$x = \frac{24}{4} = 6$$

⑤ State the test whether the triangles are congruent. Then, name the pair of congruent triangles.



$\triangle CBD \cong \triangle DAC$
test \rightarrow SAS



$\triangle ABD \cong \triangle ECD$
test \rightarrow SAS

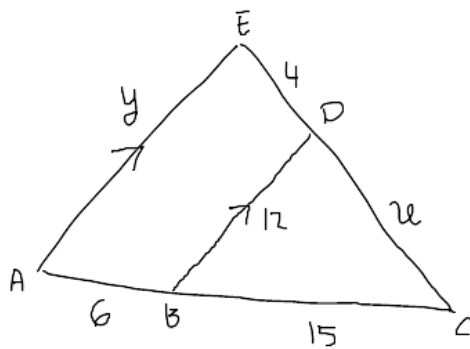
⑥ Are they similar? Explain



$$\frac{8}{15} \neq \frac{4}{6}$$

So, they are not similar

⑦ Find pronumerals from similar triangles



$$\frac{x}{x+4} = \frac{15}{21}$$

$$21x = 15x + 60$$

$$6x = 60$$

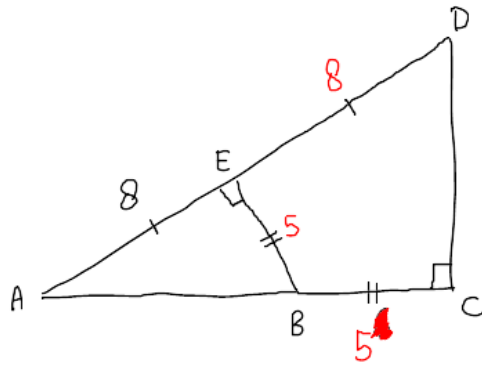
$$x = 10$$

$$\frac{12}{y} = \frac{15}{21}$$

$$15y = 12 \times 21$$

$$y = \frac{12 \times 21}{15} = 16.8$$

8



$$\frac{1}{2} \times 6.91 \times 14.43 = \underline{\underline{49.87}}$$

find = a) $AB^2 = 8^2 + 5^2$
 $AB = 9.43$

b) $CD^2 = 16^2 - 14.43^2$
 $= 6.91$

c) Area $\triangle ABE$
 $\frac{1}{2} \times 5 \times 8 = \underline{\underline{20}}$

d) Area $\triangle ACD$

e) Area quadrilateral

$$BCDE = 49.87 - 20$$
$$= \underline{\underline{29.87}}$$