Solving equations involving adding two fractions

Miss Davies
Maths

Solving equations involving adding fractions

1. Solve

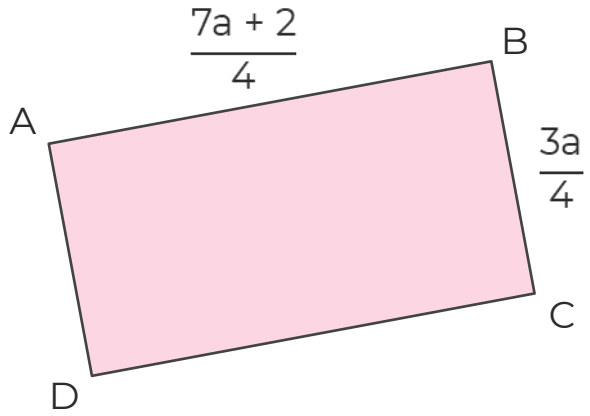
a) $\frac{a}{5} + \frac{3a}{5} = 20$

b) $\frac{2 + b}{10} + \frac{9b}{10} = 0.5$

c) $\frac{y^2 + 4}{4} + \frac{y^2 - 4}{4} = 23$

d) $\frac{7 - 2z}{2} + \frac{3z + 5}{2} = \frac{1}{2}$

2. The perimeter of the rectangle is 31 cm.



Calculate the length of side BC.

Solving equations involving adding fractions

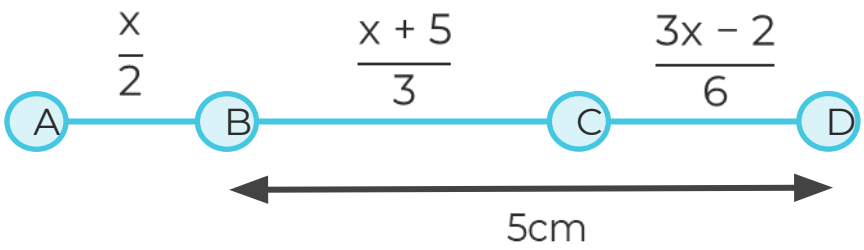
3. Solve the equations.

a) $\frac{6a}{10} + \frac{a}{5} = 21$

b) $\frac{6 + b}{6} + \frac{5b}{18} = 2$

c) $\frac{3c}{30} + \frac{2 + c}{3} = 5$

4. The distance from B to D is 5 cm.



Find the distance from A to B.

Answers

Solving equations involving adding fractions

1. Solve.

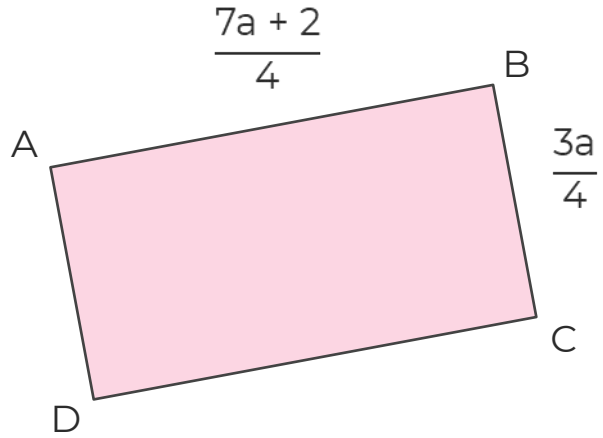
a) $\frac{a}{5} + \frac{3a}{5} = 20$ a = 25

b) $\frac{2 + b}{10} + \frac{9b}{10} = 0.5$ b = 0.3

c) $\frac{y^2 + 4}{4} + \frac{y^2 - 4}{4} = 32$ y = 8

d) $\frac{7 - 2z}{2} + \frac{3z + 5}{2} = \frac{1}{2}$ z = -7

2. The perimeter of the rectangle is 31 cm.



Calculate the length of side BC.

BC = 4.5 cm

Solving equations involving adding fractions

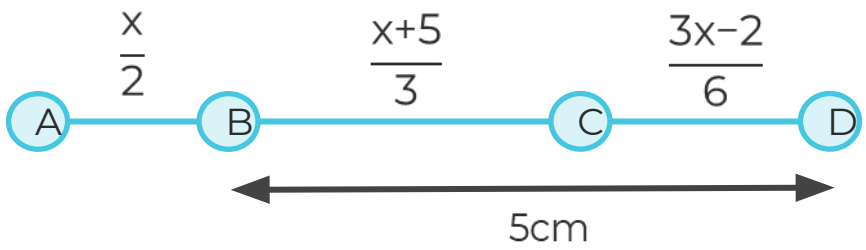
3. Solve the following equations.

a) $\frac{6a}{10} + \frac{a}{5} = 21$ a = 15

b) $\frac{6 + b}{6} + \frac{5b}{18} = 2$ b = 2.25

c) $\frac{3c}{30} + \frac{2 + c}{3} = 5$ c = 10

4. The distance from B to D is 5 cm.



Find the distance from A to B.

AB = 2.2 cm