Answer on Question #62403 – Math – Algebra

Question

$$\frac{11}{15} = \frac{1}{3}\, y$$

Solution

If

$$\frac{11}{15} = \frac{1}{3}\, y,$$

then multiplying through by 3 we get

$$\frac{11}{5} = y,$$

that is,

$$y = \frac{11}{5}.$$

Answer: $y = \frac{11}{5}$.

Question

$$\frac{11}{15} = \frac{1}{3y}$$

Solution

According to Property 1 (means-extremes property, or cross-products property),

If

$$\frac{a}{b} = \frac{c}{d},$$

then

$$ad = bc.$$

Next,

$$\frac{11}{15} = \frac{1}{3y}$$

is a proportion and Property 1 states

$$11 \cdot (3y) = 15 \cdot 1,$$

$$33y = 15.$$

Dividing by 33

$$y = \frac{15}{33};$$

$$y = \frac{3 \cdot 5}{3 \cdot 11};$$

$$y = \frac{5}{11}.$$

Answer: $y = \frac{5}{11}$.