Generate Equivalent Fractions

FREE Worksheet - 4

Time: 15 minutes

(Detailed solutions at the end)

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1. Find the missing number:

$$\frac{?}{5} = \frac{4}{20}$$

Answer: _____

2. Write any equivalent fraction of $\frac{1}{3}$

Answer: _____

3. Find the missing number:

$$\frac{6}{9} = \frac{48}{?}$$

Answer: _____

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4. Write any equivalent fraction of $\frac{2}{4}$

Answer: _____

5. Find the missing number:

$$\frac{1}{3} = \frac{?}{15}$$

Answer: _____

6. Write any equivalent fraction of $\frac{5}{11}$

Answer: _____

SOLUTIONS

Problem 1

The denominator, 20, is divided by 4 to get 5.

So, we must also divide the numerator, 4, by 4 to get an equivalent fraction.

$$\frac{4 \div 4}{20 \div 4} = \frac{1}{5}$$

So, the missing number is 1.

Problem 2

To get an equivalent fraction of $\frac{1}{3}$, we multiply its numerator and denominator by the same number.

Examples:

$$\frac{1 \times 2}{3 \times 2} = \frac{2}{6}$$

$$\frac{1 \times 3}{3 \times 3} = \frac{3}{9}$$

The first 8 equivalent fractions of $\frac{1}{3}$ by multiplying both 1 and 3 by 2, 3, ……..9 are:

$$\frac{1}{3} = \frac{2}{6} = \frac{3}{9} = \frac{4}{12} = \frac{5}{15} = \frac{6}{18} = \frac{7}{21} = \frac{8}{24} = \frac{9}{27}$$

Problem 3

The numerator, 6, is multiplied by 8 to get 48.

So, we must also multiply the denominator, 9, by 8 to get an equivalent fraction.

$$\frac{6 \times 8}{9 \times 8} = \frac{48}{72}$$

So, the missing number is 72.

Problem 4

To get an equivalent fraction of $\frac{2}{4}$, we multiply its numerator and denominator by the same number.

Examples:

$$\frac{2 \times 2}{4 \times 2} = \frac{4}{8}$$

$$\frac{2 \times 3}{4 \times 3} = \frac{6}{12}$$

The first 8 equivalent fractions of $\frac{2}{4}$ by multiplying both 2 and 4 by 2, 3, ……..9 are:

$$\frac{2}{4} = \frac{4}{8} = \frac{6}{12} = \frac{8}{16} = \frac{10}{20} = \frac{12}{24} = \frac{14}{28} = \frac{16}{32} = \frac{18}{36}$$

Problem 5

The denominator, 3, is multiplied by 5 to get 15.

So, we must also multiply the numerator, 1, by 5 to get an equivalent fraction.

$$\frac{1 \times 5}{3 \times 5} = \frac{5}{15}$$

So, the missing number is 5.

Problem 6

To get an equivalent fraction of $\frac{5}{11}$, we multiply its numerator and denominator by the same number.

Examples:

$$\frac{5 \times 2}{11 \times 2} = \frac{10}{22}$$

$$\frac{5 \times 3}{11 \times 3} = \frac{15}{33}$$

The first 8 equivalent fractions of $\frac{5}{11}$ by multiplying both 5 and 11 by

2, 3, ……..9 are:

$$\frac{5}{11} = \frac{10}{22} = \frac{15}{33} = \frac{20}{44} = \frac{25}{55} = \frac{30}{66} = \frac{35}{77} = \frac{40}{88} = \frac{45}{99}$$