Name_____

Equivalent Fractions

Date_____ Period_____

True or False - The fractions are equivalent.

1) $\dfrac{5}{2}$ and $\dfrac{3}{1}$

2) $\dfrac{5}{9}$ and $\dfrac{25}{45}$

3) $\dfrac{5}{4}$ and $\dfrac{10}{8}$

4) $\dfrac{1}{2}$ and $\dfrac{3}{6}$

5) $\dfrac{2}{3}$ and $\dfrac{6}{9}$

6) $\dfrac{9}{2}$ and $\dfrac{9}{4}$

7) $\dfrac{9}{5}$ and $\dfrac{36}{25}$

8) $\dfrac{4}{7}$ and $\dfrac{12}{7}$

9) $\dfrac{9}{8}$ and $\dfrac{27}{24}$

Equivalent Fractions

True or False - The fractions are equivalent.

1) $\frac{5}{2}$ and $\frac{3}{1}$

Answer: No

2) $\frac{5}{9}$ and $\frac{25}{45}$

Answer: Yes

3) $\frac{5}{4}$ and $\frac{10}{8}$

Answer: Yes

4) $\frac{1}{2}$ and $\frac{3}{6}$

Answer: Yes

5) $\frac{2}{3}$ and $\frac{6}{9}$

Answer: Yes

6) $\frac{9}{2}$ and $\frac{9}{4}$

Answer: No

7) $\frac{9}{5}$ and $\frac{36}{25}$

Answer: No

8) $\frac{4}{7}$ and $\frac{12}{7}$

Answer: No

9) $\frac{9}{8}$ and $\frac{27}{24}$

Answer: Yes

Equivalent Fractions

Solution Steps

1) $\dfrac{5}{2}$ and $\dfrac{3}{1}$

First, write each fraction in lowest terms

The greatest common divisor of 5 and 2 is 1, so $\dfrac{5}{2}$ is already in lowest terms

The greatest common divisor of 3 and 1 is 1, so $\dfrac{3}{1}$ is already in lowest terms

$\dfrac{5}{2}$ is not equal to $\dfrac{3}{1}$

2) $\dfrac{5}{9}$ and $\dfrac{25}{45}$

First, write each fraction in lowest terms

The greatest common divisor of 5 and 9 is 1, so $\dfrac{5}{9}$ is already in lowest terms

$\dfrac{25}{45}$ can be reduced, since 5 is a factor of both 25 and 45:

$\dfrac{25}{45} \div \dfrac{5}{5} = \dfrac{5}{9}$

The fraction is now in lowest terms

$\dfrac{5}{9}$ is equal to $\dfrac{25}{45}$

3) $\dfrac{5}{4}$ and $\dfrac{10}{8}$

First, write each fraction in lowest terms

The greatest common divisor of 5 and 4 is 1, so $\dfrac{5}{4}$ is already in lowest terms

$\dfrac{10}{8}$ can be reduced, since 2 is a factor of both 10 and 8:

$\dfrac{10}{8} \div \dfrac{2}{2} = \dfrac{5}{4}$

The fraction is now in lowest terms

$\dfrac{5}{4}$ is equal to $\dfrac{10}{8}$

4) $\dfrac{1}{2}$ and $\dfrac{3}{6}$

First, write each fraction in lowest terms

The greatest common divisor of 1 and 2 is 1, so $\dfrac{1}{2}$ is already in lowest terms

$\dfrac{3}{6}$ can be reduced, since 3 is a factor of both 3 and 6:

$\dfrac{3}{6} \div \dfrac{3}{3} = \dfrac{1}{2}$

The fraction is now in lowest terms

$\dfrac{1}{2}$ is equal to $\dfrac{3}{6}$

5) $\dfrac{2}{3}$ and $\dfrac{6}{9}$

First, write each fraction in lowest terms

The greatest common divisor of 2 and 3 is 1, so $\dfrac{2}{3}$ is already in lowest terms

$\dfrac{6}{9}$ can be reduced, since 3 is a factor of both 6 and 9:

$\dfrac{6}{9} \div \dfrac{3}{3} = \dfrac{2}{3}$

The fraction is now in lowest terms

$\dfrac{2}{3}$ is equal to $\dfrac{6}{9}$

6) $\dfrac{9}{2}$ and $\dfrac{9}{4}$

First, write each fraction in lowest terms

The greatest common divisor of 9 and 2 is 1, so $\dfrac{9}{2}$ is already in lowest terms

The greatest common divisor of 9 and 4 is 1, so $\dfrac{9}{4}$ is already in lowest terms

$\dfrac{9}{2}$ is not equal to $\dfrac{9}{4}$

7) $\dfrac{9}{5}$ and $\dfrac{36}{25}$

First, write each fraction in lowest terms

The greatest common divisor of 9 and 5 is 1, so $\dfrac{9}{5}$ is already in lowest terms

The greatest common divisor of 36 and 25 is 1, so $\dfrac{36}{25}$ is already in lowest terms

$\dfrac{9}{5}$ is not equal to $\dfrac{36}{25}$

8) $\dfrac{4}{7}$ and $\dfrac{12}{7}$

First, write each fraction in lowest terms

The greatest common divisor of 4 and 7 is 1, so $\dfrac{4}{7}$ is already in lowest terms

The greatest common divisor of 12 and 7 is 1, so $\dfrac{12}{7}$ is already in lowest terms

$\dfrac{4}{7}$ is not equal to $\dfrac{12}{7}$

9) $\dfrac{9}{8}$ and $\dfrac{27}{24}$

First, write each fraction in lowest terms

The greatest common divisor of 9 and 8 is 1, so $\dfrac{9}{8}$ is already in lowest terms

$\dfrac{27}{24}$ can be reduced, since 3 is a factor of both 27 and 24:

$$\dfrac{27}{24} \div \dfrac{3}{3} = \dfrac{9}{8}$$

The fraction is now in lowest terms

$\dfrac{9}{8}$ is equal to $\dfrac{27}{24}$