# Comparing and Ordering Fractions

**FREE Worksheet - 1**

**Time: 20 minutes**

(Detailed solutions at the end)

---

1. Jorge, Vanessa and Michelle each had a similar bar of chocolate.

   Jorge ate $\frac{2}{4}$ of his bar of chocolate.

   Vanessa ate $\frac{5}{6}$ of her bar of chocolate.

   Michelle ate $\frac{2}{3}$ of her bar of chocolate.

   Is the following statement true or false?

   Jorge ate a smaller portion than Vanessa.

   Answer: _____

2. Mrs. Kumar had 2 ribbons of the same length.

   She cut $\frac{1}{3}$ of one of the ribbons for Brenda and

   $\frac{4}{6}$ of the other ribbon for Adeline.

   Who got the bigger piece?

Answer: _____

3. Study the following figure. Is the shaded fraction greater than $\frac{1}{2}$?

Answer: _____

4. Fill in the blank

$\frac{3}{9}$ is _____ $\frac{3}{10}$

5. Which is smaller: $\frac{1}{3}$ or $\frac{2}{3}$?

Answer: _____

6. Fill in the blank:

$\frac{1}{5}$ is _____ $\frac{5}{25}$

7. Which is greater: $\frac{2}{6}$ or $\frac{5}{12}$ ?

Answer: _____

8. Arrange the following fractions in order, beginning with the smallest.

$\frac{1}{10}, \frac{5}{10}, \frac{2}{5}$

Answer: _____

# SOLUTIONS

**Problem 1**

To compare the fractions, we must first express the fractions with the same denominator by making a list of equivalent fractions.

Jorge: $\frac{2}{4}=\frac{4}{8}=\frac{6}{12}$

Vanessa: $\frac{5}{6}=\frac{10}{12}$

$\frac{6}{12}$ is greater than $\frac{10}{12}$

So, the statement, Jorge ate a smaller portion than Vanessa, is ***True.***

**Problem 2**

To compare the two fractions, we must first express the fractions using a common denominator.

Brenda: $\frac{1}{3}=\frac{2}{6}$

Adeline: $\frac{4}{6}$

$\frac{4}{6}$ is greater than $\frac{2}{6}$

So, Adeline got the bigger piece.

**Problem 3**

The shaded portion of the figure represents the fraction $\frac{5}{8}$

To compare the fractions, we must first list the equivalent fractions o

of $\frac{1}{2}$

$\frac{1}{2} = \frac{2}{4} = \frac{4}{8}$

$\frac{5}{8}$ is greater than $\frac{4}{8}$.

So, the statement is ***True.***

**Problem 4**

To compare the fractions, we must first express them using a common denominator.

Fraction 1:

$\frac{3}{9} = \frac{6}{18} = \frac{9}{27} = \frac{12}{36} = \frac{15}{45} = \frac{18}{54} = \frac{21}{63} = \frac{24}{72} = \frac{27}{81} = \frac{30}{90}$

Fraction 2:

$\frac{5}{10}=\frac{10}{20}=\frac{15}{30}=\frac{20}{40}=\frac{25}{50}=\frac{30}{60}=\frac{35}{70}=\frac{40}{80}=\frac{45}{90}$

$\frac{30}{90}$ is less than $\frac{45}{90}$

So, $\frac{3}{9}$ is ***less than*** $\frac{5}{10}$

**Problem 5**

The fractions $\frac{1}{3}$ and $\frac{2}{3}$ have a common denominator.

The smaller fraction is the one with the smaller numerator.

So, $\frac{1}{3}$ is the smaller fraction.

**Problem 6**

To compare the two fractions, we must first express both the fractions with the same denominator by making a list of equivalent fractions.

Fraction 1:

$\frac{1}{5}=\frac{2}{10}=\frac{3}{15}=\frac{4}{20}=\frac{5}{25}$

Fraction 2:

$$\frac{5}{25}$$

From the above we see that $\frac{1}{5}$ is equal to $\frac{5}{25}$.

**Problem 7**

To compare the two fractions, we must first express both the fractions with the same denominator by making a list of equivalent fractions.

Fraction 1:

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

Fraction 2:

$$\frac{5}{12}$$

$\frac{5}{12}$ is greater than $\frac{4}{12}$.

So, $\frac{5}{12}$ is greater than $\frac{2}{6}$.

**Problem 8**

To compare the two fractions, we must first express both the fractions with the same denominator by making a list of equivalent fractions.

Fraction 1:

$$\frac{1}{10}$$

Fraction 2:

$$\frac{5}{10}$$

Fraction 3:

$$\frac{2}{5}=\frac{4}{10}$$

The fraction with the smallest numerator is the smallest fraction while the fraction with the biggest numerator is the biggest fraction.

So, beginning with the smallest, the fractions should be arranged in the following order:

$$\frac{1}{10}, \frac{2}{5}, \frac{5}{10}$$