Name _____ Date _____

Simplifying Fractions

PART 1 Grouping

1 8 of the 12 counters are coloured. That is $\frac{8}{12}$ of the counters.

a) Circle groups of 2 counters so that each group has one colour.



Groups: ☐ coloured: ☐

$\frac{8}{12} = \frac{\square}{\square}$

b) Now circle groups of 4 counters.



Groups: ☐ coloured: ☐

$\frac{8}{12} = \frac{\square}{\square}$

Remember

To simplify a fraction means to **divide the numerator and the denominator by the same natural number greater than 1**. The value does not change, only the way it is written.

$\frac{6}{8} = \frac{6:2}{8:2} = \frac{3}{4}$

2 Simplify the fractions by the given number.

$\frac{6}{8} = \frac{\square}{\square}$ (by 2)

$\frac{9}{12} = \frac{\square}{\square}$ (by 3)

$\frac{10}{15} = \frac{\square}{\square}$ (by 5)

$\frac{14}{21} = \frac{\square}{\square}$ (by 7)

$\frac{20}{30} = \frac{\square}{\square}$ (by 10)

$\frac{12}{18} = \frac{\square}{\square}$ (by 6)

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PART 2 Simplest form

Remember

A fraction is in **simplest form** when the numerator and the denominator have no common divisor greater than 1. The quickest way is to divide by the greatest common divisor.

3 Write the fractions in simplest form.

$\frac{18}{24} = \frac{\square}{\square}$ $\frac{15}{45} = \frac{\square}{\square}$ $\frac{24}{36} = \frac{\square}{\square}$

$\frac{16}{40} = \frac{\square}{\square}$ $\frac{35}{49} = \frac{\square}{\square}$ $\frac{12}{30} = \frac{\square}{\square}$

4 Circle the fractions that are already in simplest form.

$\frac{9}{16}$ $\frac{21}{28}$ $\frac{5}{7}$ $\frac{13}{26}$ $\frac{11}{12}$ $\frac{15}{25}$

5 Error detective. Is the solution correct? Circle. If it is not, correct it.

a) Ema: $\frac{4}{8} = \frac{2}{8}$ because I divided the numerator by 2. **CORRECT / WRONG**

b) Petar: $\frac{12}{16} = \frac{6}{8}$ and that is the simplest form. **CORRECT / WRONG**

c) Luka: $\frac{6}{9} = \frac{2}{3}$ because I divided both by 3. **CORRECT / WRONG**