Sept 19

1) There are 30 students in gym class. 10 are boys and 20 are girls. Write two ratios to represent the students in this class (make sure you write down what your ratio is representing)

Boys to all Students
10:30

$$\frac{10}{30}$$

boys to girls
10 : 20

girls to boys
20 : 10

Girls to all students
20 : 30

$$\frac{20}{30}$$

Equivalent Ratios

- Equivalent ratios are two or more ratios that show the same relationship between quantities, even though the numbers in the ratios are different
- To find equivalent ratios, multiply or divide both parts of the ratio by the same ~~non-zero~~ number.

Equivalent Fractions

- Equivalent fractions are different representations of the same numerical value, meaning they represent the same portion of a whole
- To find equivalent fractions, you can either multiply or divide the numerator and denominator by the same number.
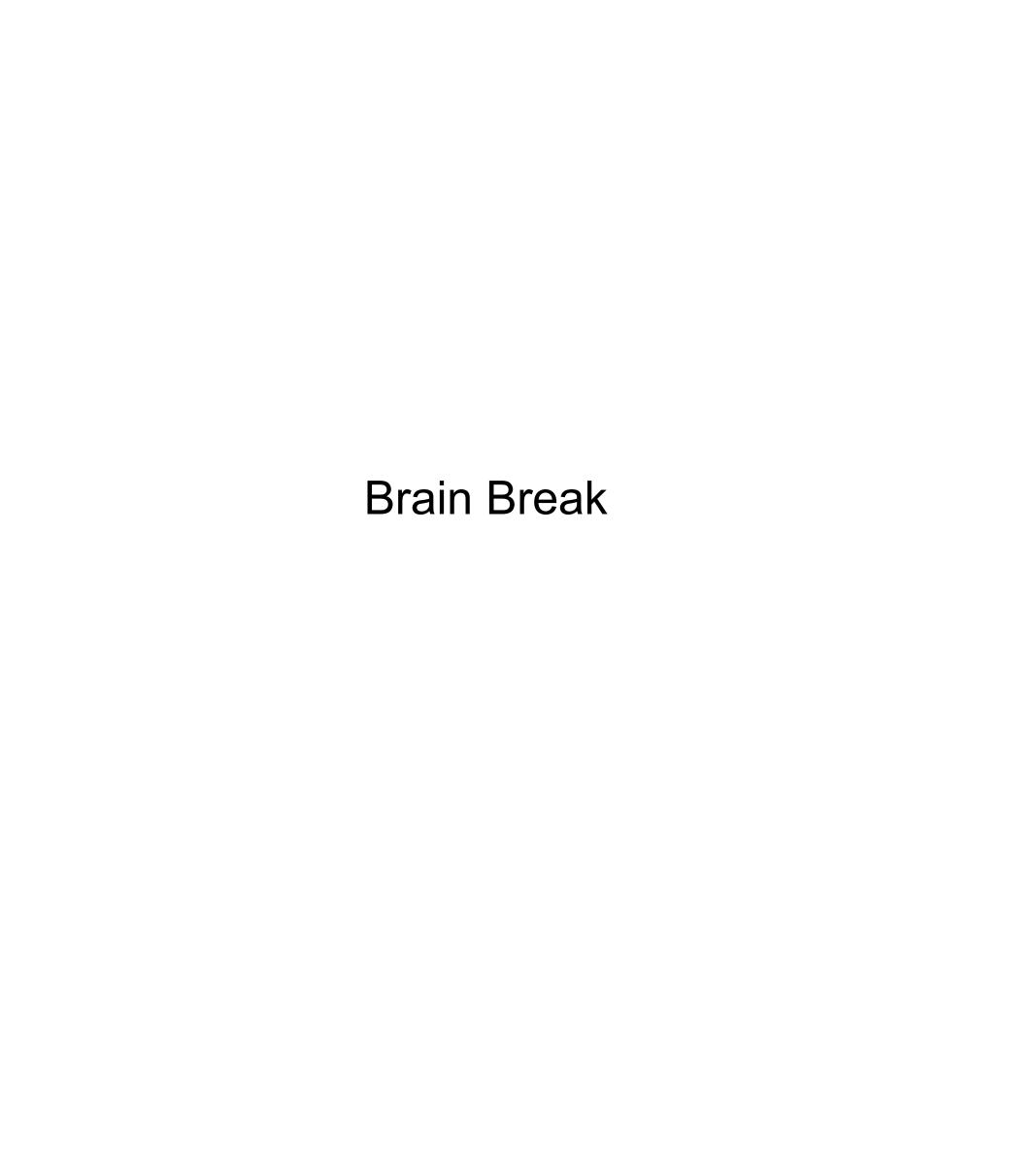
1) Write a ratio with one of the terms 30

a) 7 : 3 $\times 10$ $\times 10$

$70 : 30$

$7 : 3 = 70 : 30$

b) 10 : 15 $\times 2$ $\times 3$

$30 : 45$

$20 : 30$

2) Write two equivalent ratios

a) 20 : 8 $\div 4$ $\div 2$

$5 : 2$

$10 : 4$

b) 14 : 4 $\times 2$ $\div 2$

$28 : 8$

$7 : 2$

c) 6 : 10

d) 16 : 22

Fractions

$$\frac{10}{20} \frac{\div 2}{\div 2} = \frac{5}{10} \frac{\div 5}{\div 5} = \frac{1}{2}$$

$$\frac{10}{20} = \frac{1}{2}$$

3) The ratio of boys to girls at a middle school is 3:2. If there is a total of 150 students in middle school, then how many are girls?

Brain Break

- 4 x 8 =
- 4 x 2 =
- 4 x 11 =
- 4 x 6 =
- 4 x 1 =
- 4 x 12 =
- 4 x 5 =

- 4 x 3 =
- 4 x 10 =
- 4 x 7 =
- 4 x 9 =
- 4 x 4 =