

Working Ratios – Novice

Name: Key

Learning Goals:

1. I will be able to understand and use two and three term ratios in word problems
2. I will be able to make equivalent ratios
3. I will be able to compare ratios

Learning Goal #1: Ratios

1. What is the snail to starfish ratio from below: 2 : 3



2. The ratio of cats to dogs is 25:5. Put this in lowest terms

5:1

3. The ratio of soccer balls to basketballs is 1:3. If there are 9 basketballs, how many soccer balls are there? Show your work.

$$1:3 = 3:9$$

Learning Goal #2: Equivalent Ratios

1. List four equivalent ratios for 4:3

- a. 8 : 6
- b. 12 : 9
- c. 16 : 12
- d. 20 : 15

answers will vary

2. Write the following ratios in simplest form

- a. 5:15 → 1 : 3
- b. 3:9 → 1 : 3
- c. 4:12 → 1 : 3

Learning Goal #3: Comparing Ratios

1. Make the following ratio with the first term "1"

- a. $4:12 \rightarrow 1:\underline{3}$
- b. $5:10 \rightarrow \underline{1}:2$
- c. $2:8 \rightarrow \underline{1}:4$
- d. $3:18 \rightarrow \underline{1}:6$

2. In a basketball game, Gurshan made 6 of 10 free shots. Dakota made 3 of 4. Who had more free shots? Explain your answer:

$$\frac{6 \times 4}{10 \times 4} = \frac{24}{40}$$

$$\frac{3 \times 10}{4 \times 10} = \frac{30}{40}$$

Dakota's ratio is larger

3. In the Grade 7 population at SMS there are 4 skiers for every 6 snowboarders. In the grade 8 population at SMS there are 5 skiers for every 10 snowboarders. Which group has a larger population of skiers? Explain your answer:

	Skiers	:	snowboards
Gr 7	$\frac{4}{\times 5}$:	$\frac{6}{\times 5} = 20:30$
Gr 8	$\frac{5}{\times 3}$:	$\frac{10}{\times 3} = 15:30$

Gr 7's ratio of skiers is larger.

4. In the 8-3 class there is a ratio of 4 girls for every 5 boys. In the 8-2 classroom there is a ratio of 3 girls for every 4 boys. Which class has the higher male population? Explain your answer:

$$\frac{5 \times 7}{9 \times 7} = \frac{35}{63}$$

$$\frac{4 \times 9}{7 \times 9} = \frac{36}{63}$$

8-2's ratio of boys population is larger.

5. In the hockey skills competition Sidney Crosby scored on 5 of his 6 shots. Henrik Sedin scored on 6 of his 7 shots. Whose performance was better? Explain your answer:

$$\frac{5 \times 7}{6 \times 7}$$

$$\frac{6 \times 6}{7 \times 6}$$

$$\frac{35}{42}$$

$$\frac{36}{42}$$

Henrik Sedin's ratio is better