Copy the outcomes in your scribbler and then **read** the achievement indicators.

N4 - Demonstrate an understanding of ratio and rate.

ACHIEVEMENT INDICATORS

- Express a two-term ratio from a given context in the forms 3:5 or 3 to 5.
- Express a three-term ratio from a given context in the forms 4:7:3 or 4 to 7 to 3.
- Express a part to part ratio as a part to whole fraction, e.g., frozen juice to water; 1 can concentrate to 4 cans of water can be represented as 5 1 , which is the ratio of concentrate to solution, or 5 4 , which is the ratio of water to solution.
- Identify and describe ratios and rates from real-life examples, and record them symbolically.
- Express a given rate using words or symbols, e.g., 20 L per 100 km or 20 L/100 km.
- Express a given ratio as a percent and explain why a rate cannot be represented as a percent.

N5 - Solve problems that involve rates, ratios and proportional reasoning.

ACHIEVEMENT INDICATORS

- Explain the meaning of $\frac{a}{b}$ within a given context.

- Provide a context in which $\frac{a}{b}$ represents a:
  - fraction
  - rate
  - ratio
  - quotient
  - Probability.

- Solve a given problem involving rate, ratio or percent

Key Words-review these key words and definitions.
By the end of this unit, you should know these key words.

- **Two Term Ratio**: a comparison of two quantities with the same unit
- **Three Term Ratio**: a comparison of three quantities with the same unit
- **Part to Whole Ratio:** a ratio that compares a part of the whole to the whole
- **Part to Part Ratio:** a ratio that compares a part of the whole to another part of the whole
- **Equivalent Ratios:** having the same value; for example 3:4 and 9:12
- **Proportions**: a statement that two ratios are equal; for example, r:24 = 3:4
- **Rate:** a comparison of two quantities measured in different units
- **Unit rate:** a quantity associated with a single unit of another quantity; for example, 6 m in 1 s is a unit rate; it is written as 6 m/s

(To read)

Advertisers often use numbers to convince people to buy their product and it is important that consumers be able to compare and interpret these slogans to get accurate information before purchasing products.

- 2 out of 3 means for every 3 people asked; 2 preferred this type of popcorn and one preferred another.
- "Twice as many people" is another way of saying 2 out of 3. Two people are for this type of popcorn and another is not; 2 is twice 1.
- 3518 more people preferred Super-Popper Popcorn.

The last advertisement does not state how many people were surveyed. So this information could be irrelevant; that is if 1 000 000 surveyed, 3518 not very many. But if 4000 surveyed; 3518 would be significant.

The 3rd is most effective because it gets right to the point. You would also be correct if you identified the 2nd as it shows a large number of people where surveyed.

Ratio Videos – Watch as needed.

All about Ratios – https://www.youtube.com/watch?v=7AnQUy207Ms

Part to Whole Ratios – https://www.youtube.com/watch?v=G3BO6rrKhzo

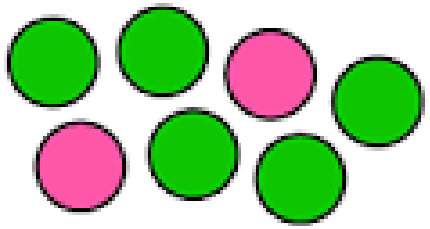
Part to Part Ratios – https://www.youtube.com/watch?v=7PFniZ8XoQ0

Equivalent Ratios – https://www.youtube.com/watch?v=GBifZt91ZKQ

Simplifying Ratios - https://www.youtube.com/watch?v=6uwnkOC5hLI

5.5 Ratios – Practice (Review from Grade 6)

green to pink **5** : 2
pink to green **2** : 5



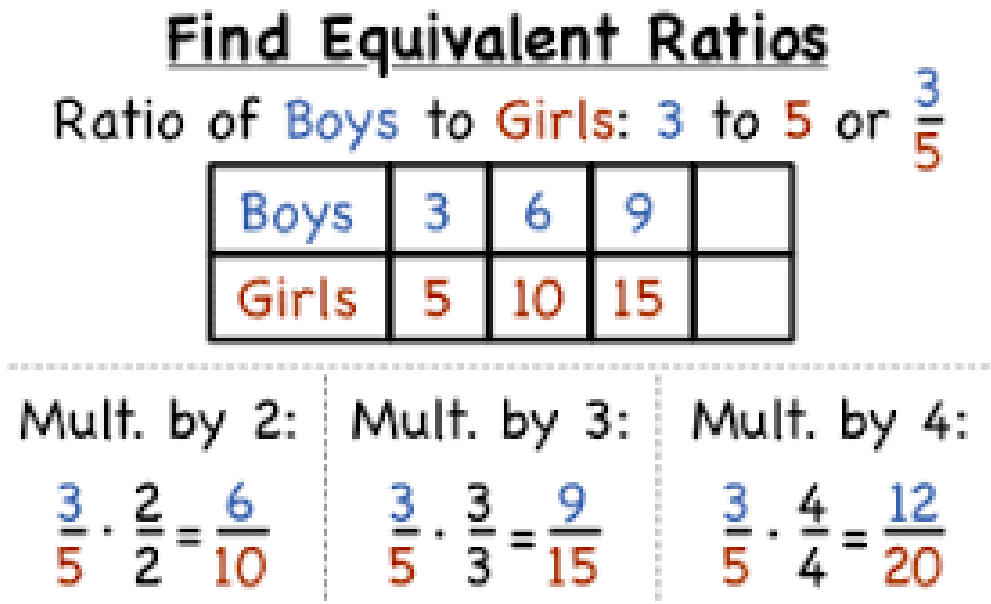
1) Read the *Connect* section on page 265 and then the *Example* on page 266.

2) In your math scribbler, **complete** questions #4, 5, 6, 7, 8, 10, 11 and 17 on pages 266-268.

****Correct** your responses using the back of textbook.

5.6 Equivalent Ratios – also a review from Grade 6

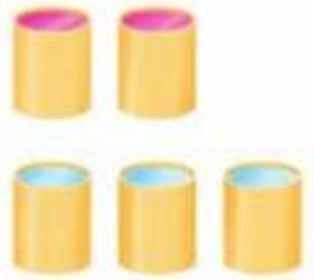
- **Read** the *Connect* section on pages 270-271. Take notes.
- **Review** the *Examples* on pages 272 and 273.
- **Complete** questions #6,7,8,9,11a, 12 and 13 on page 274.
- ** **Correct** your responses using the back of textbook.



N4/N5 Journal Question # 1

5.7 Comparing Ratios

Recipe A for punch calls for 2 cans of concentrate and 3 cans of water.



Recipe B for punch calls for 3 cans of concentrate and 4 cans of water.

In which recipe is the punch stronger?
Or, are the drinks the same strength?

1. **Read** the Connect section on pages 279 and 280. Take notes as needed.

2. **Review** examples 1, 2, and 3 on pages 281-283.

3. **Complete** questions # 4 (a,c,e), 5 (a,c,e), 6, 7, 12 and 14 on pages 284 and 285.

4. **Worksheet 5.7** – Comparing Ratios (pages 118-121 in Practice and Homework Book).

N4/N5 Journal Question # 2

5.8 Solving Ratio Problems

- 1) **Read** the *Connect* section and *Examples* 1, 2 and 3 on pages 287-290.

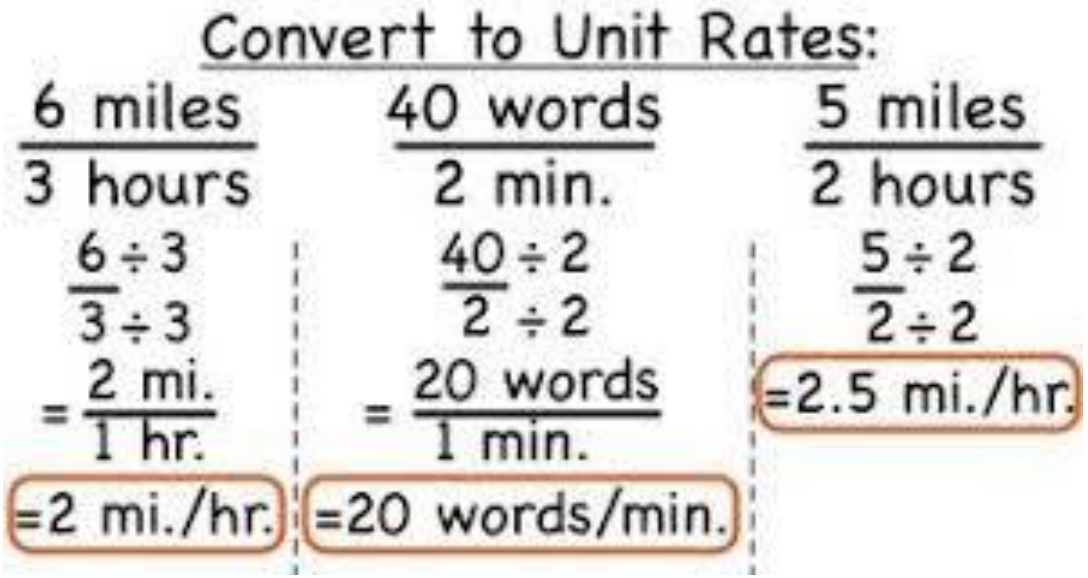
- **2) Complete** questions # 4 (b,d,f), 5 (b,d,f), 7 (b,d,f), 8 and 9 on pages 291 and 292.
- **Correct your answers in the back of the book.**

- **3) Worksheet 5.8** – Solving Ratio Problems (pages 122-123 in the Practice and Homework Book)

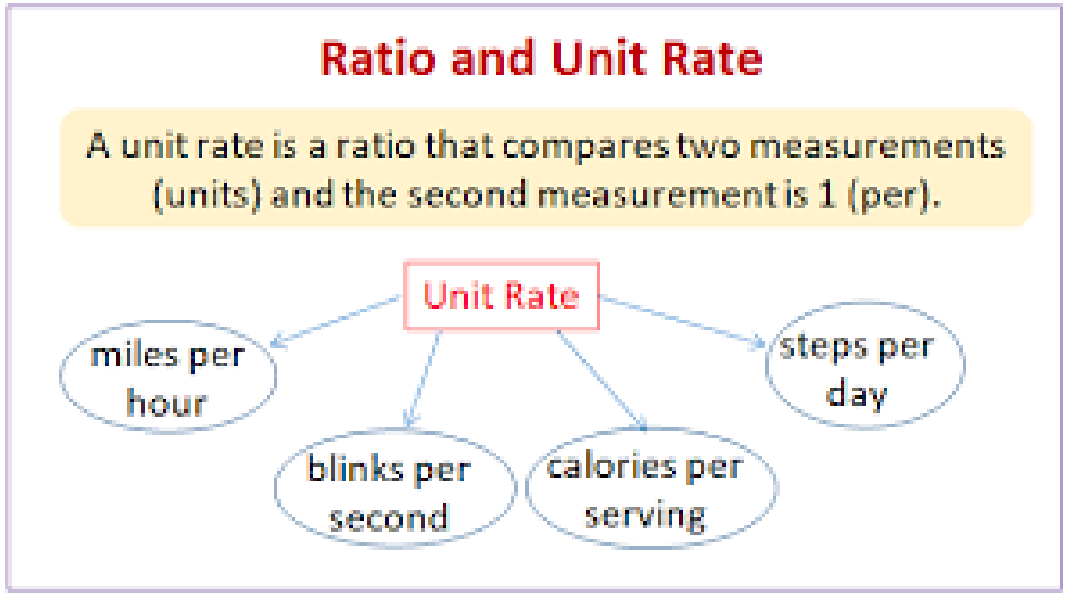
N4/N5 Journal Question #3

Exploring Rates Videos – Watch as needed.

- Rates and Unit Rates - https://www.youtube.com/watch?v=jC1K7fM91sE
- Rates and Unit Rates Part 2 - https://www.youtube.com/watch?v=e6iwMe7tdQk
- Solving Unit Rates - https://www.youtube.com/watch?v=VrsDrMsPb8g
- How to Find Unit Prices - https://www.youtube.com/watch?v=kFNEqLWy1P4



5.9 Exploring Rates



- 1) **Read** the *Connect* section and *Examples* on pages 295- 297. **Take notes** as needed.

- 2) **Complete** questions #4, 5, 6, 7, 8 and 9 on page 298.
- **Correct** answers in the back of the book.

- 3) **Worksheet 5.9** – Exploring Rates (pages 124-126 in the Practice and Homework Book)

5.10 - Comparing Rates

Many grocery items come in different sized packages.

250 mL	500 mL	1 L	2 L
$1.49	$1.69	$2.79	$3.99

How can you find out which is the best buy?

1) Read the Connect section and Examples on pages 301-303.

2) Complete questions # 5, 7, 8, 9, 12 on pages 303-304.

****Correct** answers in the back of the book.

3) Worksheet 5.10 – Comparing Rates (pages 127-128 in the Practice and Homework Book)

N4/N5 Journal Question # 4

Review N4 & N5

Complete questions #15, 17, 18, 21, 28 on pages 309-311

and # 2,3,7,9 on pages 312-313.