

Rates and Unit Rates

Flagship

Lesson 4-1-flagship

Name: _____
Type your name

Date: _____
Today's date

Class: _____
Class period

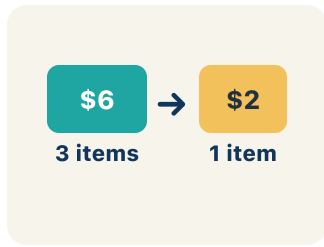
ARCADE BUILDER MISSION

Best Booth in the Arcade

You are the new operations manager at NeonPlex Arcade. Two ticket booths are competing for players — Booth A charges \$3 for 5 games, Booth B charges \$5 for 8 games. Players want the best deal, and your job is to crown the winning booth by mastering unit rates.

Key Vocabulary Level 2 Standard

Picture first, then the word, then a plain-language meaning. Say each word out loud.



\$12 for 4 games is a rate

Rate

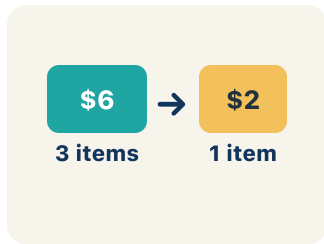
Write the definition:



\$3 per 1 game

Unit Rate

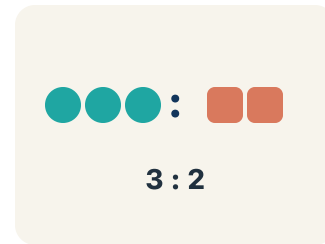
Write the definition:



60 miles per hour means 60 miles for every 1 hour

Per

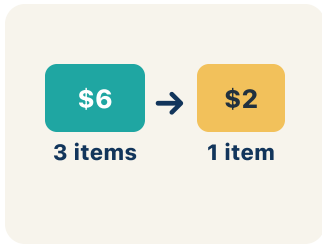
Write the definition:



5 to 3 or 5:3

Ratio

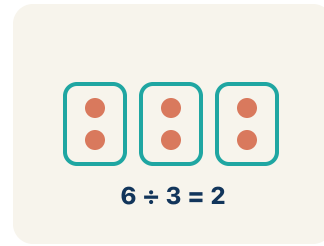
Write the definition:



Pack A: \$0.50 per pencil vs Pack B: \$0.40 per pencil – Pack B is the better buy

Better Buy

Write the definition:



\$12 ÷ 4 games = \$3 per game

Divide

Write the definition:

Guided Notes Level 2 Standard



WHAT WE'RE LEARNING TODAY

I can find a unit rate to compare prices and decide the better buy.



Fill in each blank as we go. Use the Word Bank to help you.



WORD BANK – FILL EACH BLANK WITH THE BEST WORD

Rate

Unit Rate

Per

Ratio

Better Buy

Divide



Tap any word to see what it means and a picture.

1 A ratio that compares two quantities with different units is a

2 A rate that tells the cost or amount for one unit is a .

3 The word that means 'for each one' is .

4 A comparison of two quantities is a .

5 The option with the lower unit rate, costing less per item, is the

.

6 To find a unit rate, I the price by the number of units.



Watch & Try – Worked Examples

See the notes in action: watch one worked all the way through, then try the next with the same steps.


 **I do – watch**


Follow each step as your teacher solves it.

Problem: A booth charges \$4.50 for 9 games. What is the unit rate?

- A. \$0.50 per game
- B. \$0.45 per game
- C. \$2.00 per game
- D. \$4.50 per game

Step 1 $\$4.50 \div 9 = \0.50 per game.

 **Answer:** A. \$0.50 per game

 **We do – together**

Solve this one with your class using the same steps.

Problem: A car travels 180 miles using 6 gallons of gas. What is the unit rate in miles per gallon?

- A. 30 miles per gallon
- B. 6 miles per gallon
- C. 180 miles per gallon
- D. 36 miles per gallon

Step 1 _____

Step 2 _____

Answer: _____

 **You do — your turn**

Now try one on your own. Show every step.

Problem: A pack of 8 markers costs \$6.00. What is the cost per marker?

- A. \$0.75
- B. \$0.80
- C. \$1.33
- D. \$0.60

Show your work:

Try It

Solve on your own. Check the answer key when you are done.

1. Lock 2 — Speed Door: Two racing games unlock the door. Pixel Racer scores 250 points in 5 minutes. Turbo Drift scores 180 points in 4 minutes. Which game earns points at the faster rate?

- A. Pixel Racer (50 points per minute)
- B. Turbo Drift (50 points per minute)
- C. Pixel Racer (45 points per minute)
- D. They earn points at the same rate

Show your work:

2. Lock 3 — Claw Machine Vault: Three coin deals glow on the screen. Which deal is the best value (lowest cost per play)?

- A. \$5.00 for 10 plays
- B. \$6.00 for 8 plays
- C. \$9.00 for 12 plays
- D. \$7.00 for 10 plays

Show your work:

Stretch Your Thinking

Level 2 enrichment

Challenge task — explain your reasoning in full sentences.

An arcade sells tokens in three packs: 25 tokens for \$5, 60 tokens for \$10.80, and 100 tokens for \$19. A student says the 100-token pack is always the best deal because you get the most tokens. Is the student correct? Find all three unit rates and explain.

Sentence starter: The student is ___ because the best deal is the ___ pack with a unit rate of \$___ per token.

Show your work:

Reflect — Exit Ticket

A store sells 6 pencils for \$1.50 and 10 pencils for \$2.80. Which is the better buy?

- A. 6 for \$1.50 — \$0.25 each
- B. 10 for \$2.80 — \$0.28 each
- C. They cost the same per pencil
- D. Not enough information

Your answer:
