MSTAR PRACTICE WORKSHEET

Lesson 3-2: Understand Rates and Unit Rates

Grade 6 Mathematics · Standard 6.AT.2

Name: _____ Date: _____

These are MSTAR-style questions written for this curriculum to rehearse the format. They are not official Maryland assessment items. MSTAR — Maryland's new state test, first given in spring 2027 — uses the same kinds of questions you see here: selected response, select-all, two-part evidence questions, and written responses.

Part A — Skills Check

Warm up with the lesson's core skills — one best answer each.

Question 1 SELECTED RESPONSE · 1 POINT

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

(A) $0.45 per game

(B) $0.50 per game

(C) $2.00 per game

(D) $4.50 per game

Question 2 SELECTED RESPONSE · 1 POINT

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

(A) 6 miles per gallon

(B) 30 miles per gallon

(C) 36 miles per gallon

(D) 180 miles per gallon

Question 3 SELECTED RESPONSE · 1 POINT

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

(A) $0.60

(B) $0.75

(C) $0.80

(D) $1.33

Question 4 SELECTED RESPONSE · 1 POINT

Which is a unit rate?

(A) 12 miles per 1 hour

(B) 24 miles in 2 hours

(C) 36 miles for 3 gallons

(D) 100 points in 5 games

Question 5 SELECTED RESPONSE · 1 POINT

Token packs: Pack A is 20 tokens for $5.00, Pack B is 35 tokens for $7.00, and Pack C is 50 tokens for $12.50. Which pack is the best deal per token?

(A) Pack B

(B) Pack A

(C) Pack C

(D) They are all the same

Question 6 SELECTED RESPONSE · 1 POINT

Runner A completes 4 laps in 12 minutes. Runner B completes 5 laps in 14 minutes. Who runs more laps per minute?

(A) Runner B

(B) Runner A

(C) Same rate

(D) Cannot determine

Part B — Test-Format Questions

These match the state test's formats: two-part questions, select-all, and written responses.

Question 7 TWO-PART QUESTION

Part A

Booth A charges $3 for 5 games. What is the unit rate in dollars per game?

Fill in the bubble next to the one best answer.

(A) $0.30 per game

(B) $0.60 per game

(C) $1.67 per game

(D) $15.00 per game

Part B

Answer Part A before Part B — Part B asks about your reasoning.

Booth B charges $5 for 8 games. Which booth is the better deal, and why?

(A) Booth B, because $5 buys more games than $3.

(B) Booth A, because 3 is less than 5.

(C) They are equal, because both ratios simplify to the same value.

(D) Booth A, because $0.60 per game is less than $0.625 per game.

Question 8 WRITTEN RESPONSE · 2 POINTS

Type II Reasoning: Dividing the Wrong Way

> Marisol wanted the cost per pound of apples. The sign read '4 pounds for $6.' She wrote: 'Unit rate = 4 ÷ 6 = about $0.67 per pound.'

Explain Marisol's misconception and give the correct unit rate.

Write your answer in complete sentences. Show or explain your mathematical thinking.

Part C — Show Your Thinking

Answer in writing, the way the state test's constructed responses work.

Question 9 WRITTEN RESPONSE · 2 POINTS

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.

Write your answer in complete sentences. Show or explain your mathematical thinking.

When you finish, check your reasoning with your teacher or family. Your teacher has the scoring guide for the written responses.