MSTAR PRACTICE WORKSHEET

Lesson 3-3: Determine Equivalent Ratios Using Tables

Grade 6 Mathematics · Standard 6.AT.3a

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 recipe uses 3 eggs for every 5 cups of flour. How many eggs are needed for 15 cups of flour?

(A) 6

(B) 9

(C) 10

(D) 12

Question 2 SELECTED RESPONSE · 1 POINT

Which row does NOT belong in a ratio table for 4:5?

(A) 6:10

(B) 8:10

(C) 12:15

(D) 16:20

Question 3 SELECTED RESPONSE · 1 POINT

A ratio table shows 3:7, 6:14, and 9:21. What is the next row?

(A) 10:24

(B) 12:28

(C) 12:24

(D) 15:28

Question 4 SELECTED RESPONSE · 1 POINT

A ratio table for 2:5 starts with 2:5, 4:10. What is the third row?

(A) 5:10

(B) 6:15

(C) 6:12

(D) 8:15

Question 5 SELECTED RESPONSE · 1 POINT

In a ratio table, the ratio of sugar to butter is 3:2. If you use 12 cups of sugar, how many cups of butter do you need?

(A) 6

(B) 8

(C) 9

(D) 10

Question 6 SELECTED RESPONSE · 1 POINT

A ratio table shows 5:8, 10:16, 15:24. What scale factor was used from the first row to the third row?

(A) 2

(B) 3

(C) 5

(D) 8

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

A ratio table pairs 3 cups of flour with 2 cups of water. If the recipe is scaled to use 12 cups of flour, how much water is needed?

Fill in the bubble next to the one best answer.

(A) 6 cups

(B) 8 cups

(C) 11 cups

(D) 24 cups

Part B

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

Why is 11 cups an incorrect answer for Part A?

(A) It divides instead of multiplying.

(B) It uses the wrong conversion factor.

(C) It adds 9 to both terms instead of multiplying both by the same factor.

(D) It reverses flour and water.

Question 8 SELECT ALL THAT APPLY

Select ALL statements that are true about ratio tables and equivalent ratios:

Mark the box next to EVERY answer that is true. More than one is correct.

[A] Multiplying both terms of a ratio by 3 produces an equivalent ratio.

[B] Dividing both terms by a common factor produces an equivalent ratio.

[C] Adding 5 to both terms produces an equivalent ratio.

[D] Every row of a correct ratio table simplifies to the same ratio.

[E] A ratio table can be extended in either direction, up or down.

Part C — Show Your Thinking

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

Question 9 WRITTEN RESPONSE · 2 POINTS

A recipe uses 4 cups of flour for every 3 cups of sugar. A student filled in a ratio table: 4:3, 8:6, 12:9, 14:12. Find and fix the error in the last row. Explain what went wrong.

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.