MSTAR PRACTICE WORKSHEET

Lesson 3-9: Equivalent Ratios

Grade 6 Mathematics · Standard 6.AT.3

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

Which ratio is equivalent to 2:5?

(A) 2:10

(B) 3:6

(C) 4:10

(D) 5:2

Question 2 SELECTED RESPONSE · 1 POINT

A recipe uses 4 eggs for every 6 cups of flour. Which ratio is equivalent?

(A) 2:3

(B) 4:3

(C) 6:4

(D) 8:10

Question 3 SELECTED RESPONSE · 1 POINT

Which ratio is NOT equivalent to 6:9?

(A) 2:3

(B) 3:5

(C) 12:18

(D) 18:27

Question 4 SELECTED RESPONSE · 1 POINT

What is the simplest form of the ratio 15:25?

(A) 1:5

(B) 3:5

(C) 5:3

(D) 15:25

Question 5 SELECTED RESPONSE · 1 POINT

Marcus earns $45 for every 3 hours of work. How much does he earn in 8 hours?

(A) $90

(B) $105

(C) $120

(D) $135

Question 6 SELECTED RESPONSE · 1 POINT

Chef Montoya's dressing uses 3 spoons of oil to 4 spoons of vinegar (3:4). Which recipe card shows an EQUIVALENT ratio?

(A) 3:8

(B) 4:3

(C) 6:7

(D) 9:12

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

Solve the proportion 4/10 = x/25 for x.

Fill in the bubble next to the one best answer.

(A) 8

(B) 10

(C) 19

(D) 62.5

Part B

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

How do cross products show that two ratios are equivalent?

(A) If a + d equals b + c, the ratios are equivalent.

(B) If a/b = c/d, then a × d equals b × c.

(C) Cross products work only when all four numbers are whole.

(D) Cross products compare the two numerators only.

Question 8 SELECT ALL THAT APPLY

Select ALL pairs of ratios that are equivalent:

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

[A] 2/3 and 8/12

[B] 5/8 and 10/16

[C] 3/4 and 4/5

[D] 6/9 and 2/3

[E] 7/10 and 14/21

Part C — Show Your Thinking

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

Question 9 WRITTEN RESPONSE · 2 POINTS

A store sells 3 pens for $2. Another store sells 9 pens for $6. Are these equivalent ratios? If so, prove it using at least two different methods (simplifying, scaling, or cross-multiplying).

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.