MSTAR PRACTICE WORKSHEET

Lesson 5-1: Determine the Area of Parallelograms and Rhombuses

Grade 6 Mathematics · Standard 6.GR.1

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

What is the area of a parallelogram with base 10 cm and height 7 cm?

(A) 17 sq cm

(B) 34 sq cm

(C) 70 sq cm

(D) 70 cm

Question 2 SELECTED RESPONSE · 1 POINT

A parallelogram has an area of 54 sq ft and a base of 9 ft. What is the height?

(A) 6 ft

(B) 27 ft

(C) 45 ft

(D) 63 ft

Question 3 SELECTED RESPONSE · 1 POINT

What is the area of a parallelogram with base 9 cm and height 5 cm?

(A) 14 sq cm

(B) 22.5 sq cm

(C) 45 sq cm

(D) 90 sq cm

Question 4 SELECTED RESPONSE · 1 POINT

Which measurement is the height of a parallelogram?

(A) The length of the slanted side

(B) The perimeter divided by 4

(C) The perpendicular distance between the base and the opposite side

(D) The longest side

Question 5 SELECTED RESPONSE · 1 POINT

Cut the slanted end off a parallelogram and slide it to the other side. What shape forms, and why does that show A = base × height?

(A) A bigger parallelogram, so the area gets larger

(B) A triangle, so the area is cut in half

(C) A square, so all four sides must be equal

(D) A rectangle with the same base and height, so its area equals base x height

Question 6 SELECTED RESPONSE · 1 POINT

A blueprint parallelogram has a base of 8 ft, a height of 5 ft, and a slanted side of 7 ft. What is its area?

(A) 26 sq ft

(B) 35 sq ft

(C) 40 sq ft

(D) 56 sq ft

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 parallelogram-shaped patio has a base of 16 feet and a perpendicular height of 9 feet. What is its area?

Fill in the bubble next to the one best answer.

- (A) 25 square feet
- (B) 50 square feet
- (C) 72 square feet
- (D) 144 square feet

Part B

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

The slanted side of that patio measures 11 feet. Why is 11 feet NOT used in the area calculation?

- (A) Because 11 is an odd number.
- (B) Because the slanted side is always longer than the height.
- (C) Because only the base matters in a parallelogram.
- (D) Because the height must be perpendicular to the base, and the slanted side is not.

Question 8 SELECT ALL THAT APPLY

Select ALL statements that are true about finding the area of a parallelogram:

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

- [A] Any side can be chosen as the base, as long as the height is perpendicular to that side.
- [B] The height is the distance straight across between the two parallel bases.
- [C] The slanted side can be used as the height.
- [D] A rectangle is a parallelogram, so $A = b \cdot h$ works for it too.
- [E] Doubling only the base doubles the area.

Part C — Show Your Thinking

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

Question 9 WRITTEN RESPONSE · 2 POINTS

A parallelogram has a base of 12 cm. If you double the height, the area doubles too. Explain why this happens using the formula, and give a specific example with numbers.

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.