MSTAR PRACTICE WORKSHEET

Lesson 4-1: Understand Percent

Grade 6 Mathematics · Standard 6.AT.4

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 does the word percent mean?

(A) Per ten

(B) Per thousand

(C) Per hundred

(D) Per part

Question 2 SELECTED RESPONSE · 1 POINT

3 out of every 10 students walk to school. What percent is that?

(A) 3%

(B) 10%

(C) 13%

(D) 30%

Question 3 SELECTED RESPONSE · 1 POINT

A decimal grid has 100 squares and 65 are shaded. What percent is shaded?

(A) 6.5%

(B) 35%

(C) 65%

(D) 100%

Question 4 SELECTED RESPONSE · 1 POINT

Which percent means MORE than one whole?

(A) 0.8%

(B) 80%

(C) 100%

(D) 120%

Question 5 SELECTED RESPONSE · 1 POINT

The orange kitten weighs 1.5 times as much as the gray kitten. What percent of the gray kitten's weight is that?

(A) 1.5%

(B) 15%

(C) 50%

(D) 150%

Question 6 SELECTED RESPONSE · 1 POINT

What percent is 9 out of 100?

(A) 0.9%

(B) 9%

(C) 19%

(D) 90%

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 robotics club had a fundraising goal of $500. By Friday, they collected $750. What percent of their goal did they achieve?

Fill in the bubble next to the one best answer.

(A) 50%

(B) 75%

(C) 125%

(D) 150%

Part B

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

Which explanation best supports your answer to Part A?

(A) Subtracting $500 from $750 gives $250, and 250 is 75% of 500.

(B) Since $500 is half of $1,000, the percent must be 50%.

(C) The ratio 500 to 750 simplifies to 2 to 3, which is 125%.

(D) Dividing $750 by $500 gives 1.5, and multiplying 1.5 by 100 gives 150%, representing 1.5 times the original whole.

Question 8 SELECT ALL THAT APPLY

Select ALL statements that correctly represent a rate per 100 or compare percents to one whole:

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

[A] 100% represents exactly one whole quantity.

[B] 45 out of 100 squares shaded on a 10×10 grid represents 45%.

[C] A percent greater than 100% represents an amount that is more than the original whole.

[D] 0.5% is equal to 50 out of 100.

[E] A percent is a ratio that compares a number to 100.

Part C — Show Your Thinking

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

Question 9 WRITTEN RESPONSE · 2 POINTS

A car dealership sold 50 cars last month: 20 sedans, 15 SUVs, 10 trucks, and 5 vans. The owner will order 100 cars for next month and wants the order to match last month's sales pattern. Write each type as a percent, then say how many of each to order — and explain why percents make this easier than the raw counts.

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.