MSTAR PRACTICE WORKSHEET

Lesson 4-3: Estimate the Percent of a Number

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

Margaret's phone has 6 GB of storage and 4 GB is used. About what percent is used?

(A) About 25%

(B) About 40%

(C) About 70%

(D) About 150%

Question 2 SELECTED RESPONSE · 1 POINT

On the double number line for 6 GB, what amount lines up with 25%?

(A) 1.25 GB

(B) 1.5 GB

(C) 2.5 GB

(D) 4 GB

Question 3 SELECTED RESPONSE · 1 POINT

Which benchmark percents make good landmarks on a number line?

(A) 0%, 25%, 50%, 75%, 100%

(B) 3%, 17%, 62%, 94%

(C) Only 50%

(D) Only 100%

Question 4 SELECTED RESPONSE · 1 POINT

To estimate 8.6% of 216 by rounding, which numbers should you use?

(A) 1% of 216

(B) 8% of 300

(C) 10% of 220

(D) 86% of 216

Question 5 SELECTED RESPONSE · 1 POINT

What is 10% of 220?

(A) 2.2

(B) 22

(C) 44

(D) 220

Question 6 SELECTED RESPONSE · 1 POINT

The Green-Team recycled 216 pounds; 8.6% was metal. Using compatible numbers 10% and 200, the estimate is:

(A) 2 pounds

(B) 20 pounds

(C) 86 pounds

(D) 208 pounds

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 jacket originally priced at $78.99 is on sale for 25% off. Which is the best estimate of the discount amount?

Fill in the bubble next to the one best answer.

(A) $8

(B) $10

(C) $20

(D) $40

Part B

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

Which benchmark strategy gives the most accurate estimate in Part A?

(A) Round 25% to 10% and multiply by $78.99.

(B) Round $78.99 to $80 and find 1/4 of $80 (half of $80 is $40, and half of $40 is $20).

(C) Round $78.99 to $100 and subtract 25.

(D) Divide $78.99 by 25.

Question 8 SELECT ALL THAT APPLY

Select ALL benchmark percent strategies that correctly estimate values:

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

[A] To find 10% of any number, divide the number by 10 (move the decimal point one place left).

[B] To find 5% of a number, find 10% and take half of that value.

[C] To find 50% of a number, multiply the number by 2.

[D] To find 20% of a number, find 10% and double it.

[E] To find 1% of a number, divide the number by 100 (move the decimal point two places left).

Part C — Show Your Thinking

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

Question 9 WRITTEN RESPONSE · 2 POINTS

Write your own estimation problem about percent, using a real situation from your life. Then solve it with a benchmark and say whether your estimate runs high or low.

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

Sentence starters: My situation: ___ . · ___% is near the benchmark ___ , so my estimate is ___ .

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