Minnesota Test of Academic Skills (MTAS)
Mathematics Released Questions
Grade 7

DEPARTMENT OF EDUCATION

Minnesota Test of Academic Skills
Grade 7 Mathematics
Sample Task 1

Test Administrator Instructions	Score	Student Responses
Administration notes: ▪ *You may use objects when presenting questions and answer options. However, some tasks limit how objects can be used; any limitations will be specified on the task.* ▪ *Repeat the question exactly as it appears at score 3 as many times as needed until the student responds or until it is clear that the student will not respond.*		
<u>Present</u>: M7_Sample 1.1 <u>Say</u>: **Kari makes $8.00 per hour at her job. The letter h stands for the number of hours she works. Which expression shows how much money she makes in h hours?** <u>Present</u> the answer options in order. *Point to each option as you say it.* A. $h+8$ B. $h-8$ C. $h\times8$	3	$h\times8$ *If you believe the student's correct response was unintentional, reorder the answer options to B, C, A (instead of A, B, C). Repeat the question. If the student chooses the correct answer again, the task should be scored a 3. If the student chooses an incorrect answer, continue below.*
Additional administration notes: ▪ *If the student responds incorrectly or not at all, present the task with support as scripted.* ▪ *Once additional support is provided, the task may not be re-administered for a score of 3.*		
<u>Present</u>: M7_Sample 1.2 <u>Say</u>: **Kari makes $8.00 for every hour she works. The letter h stands for the number of hours she works.** *Point to the key.* **For 1 hour, she makes $8.00.** *Point to the top equation.* **For 2 hours, she makes $16.00.** *Point to the second equation.* **Which expression shows how much money she makes in h hours?** <u>Re-present</u> the answer options in order. *Point to each option as you say it.* A. $h+8$ B. $h-8$ C. $h\times8$	2	$h\times8$ *If you believe the student's correct response was unintentional, reorder the answer options to B, C, A (instead of A, B, C). Repeat the question. If the student chooses the correct answer again, the task should be scored a 2. If the student chooses an incorrect answer, the task should be scored a 1.*
	1	$h+8$ or $h-8$
	0	Unrelated or none

Grade 7 Math 7.2.2.4: Students will represent real-world or mathematical situations using equations and inequalities involving variables.

$$1 \text{ hour} = \$8.00$$

$$h = \text{hours}$$

Kari makes $8.00 per hour at her job. Which expression shows how much money she makes in h hours?

$$1\ h = \$8.00$$

$$2\ h = \$16.00$$

$$h = \text{hours}$$

Which expression shows how much money she makes in h hours?
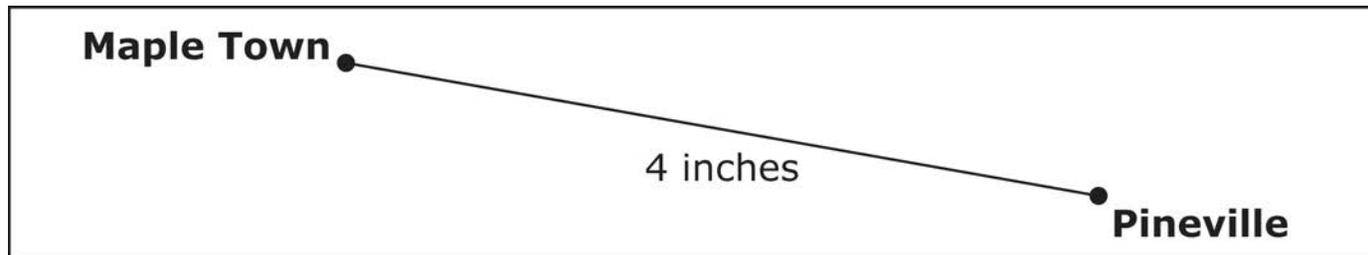
$$h + 8$$

$$h - 8$$

$$h \times 8$$

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Grade 7 Mathematics
Sample Task 2
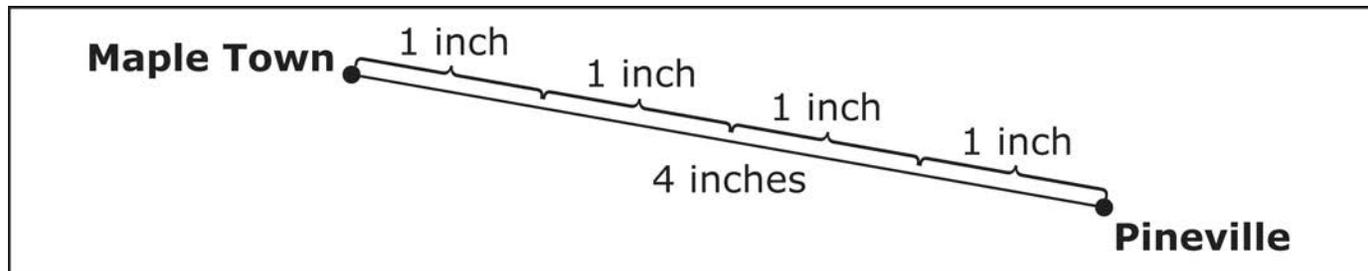
Test Administrator Instructions	Score	Student Responses
Administration notes: ▪ *You may use objects when presenting questions and answer options. However, some tasks limit how objects can be used; any limitations will be specified on the task.* ▪ *Repeat the question exactly as it appears at score 3 as many times as needed until the student responds or until it is clear that the student will not respond.*		
<u>Present</u>: M7_Sample 2.1 <u>Say</u>: **The map shows the distance between Maple Town and Pineville.** *Point to each city.* **The scale on the map**...*point to the scale*...**shows that 1 inch equals 3 miles. What is the actual distance between Maple Town and Pineville?** <u>Present</u> the answer options in order. *Point to each option as you say it.* A. **4 miles** B. **7 miles** C. **12 miles**	3	12 miles *If you believe the student's correct response was unintentional, reorder the answer options to B, C, A (instead of A, B, C). Repeat the question. If the student chooses the correct answer again, the task should be scored a 3. If the student chooses an incorrect answer, continue below.*
Additional administration notes: ▪ *If the student responds incorrectly or not at all, present the task with support as scripted.* ▪ *Once additional support is provided, the task may not be re-administered for a score of 3.*		
<u>Present</u>: M7_Sample 2.2 <u>Say</u>: **This map shows 4 inches between Maple Town and Pineville.** *Point to the distance between the 2 cities.* **Each inch represents 3 miles.** *Point to each of the 1 inch measurements.* **What is the actual distance between Maple Town and Pineville?** <u>Re-present</u> the answer options in order. *Point to each option as you say it.* A. **4 miles** B. **7 miles** C. **12 miles**	2	12 miles *If you believe the student's correct response was unintentional, reorder the answer options to B, C, A (instead of A, B, C). Repeat the question. If the student chooses the correct answer again, the task should be scored a 2. If the student chooses an incorrect answer, the task should be scored a 1.*
	1	4 miles or 7 miles
	0	Unrelated or none

Grade 7 Math 7.3.2.3: Students will use proportions and ratios to solve problems involving scale drawings and models and conversions of measurement units.

M7_Sample 2.1

Maple Town

4 inches

Pineville

1 inch | = 3 miles

What is the actual distance between Maple Town and Pineville?

What is the actual distance between Maple Town and Pineville?

4 miles

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7 miles

---

12 miles

Minnesota Test of Academic Skills
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Sample Task 3

Test Administrator Instructions	Score	Student Responses
Administration notes: ▪ *You may use objects when presenting questions and answer options. However, some tasks limit how objects can be used; any limitations will be specified on the task.* ▪ *Repeat the question exactly as it appears at score 3 as many times as needed until the student responds or until it is clear that the student will not respond.*		
<u>Present</u>: M7_Sample 3.1 <u>Say</u>: **Susan earned $5.00 per hour. She worked 2 hours on Friday and 3 hours on Saturday. How much money did Susan earn altogether?** <u>Present</u> the answer options in order. *Point to each option as you say it.* **A. $10.00** **B. $25.00** **C. $30.00**	3	$25.00 *If you believe the student's correct response was unintentional, reorder the answer options to B, C, A (instead of A, B, C). Repeat the question. If the student chooses the correct answer again, the task should be scored a 3. If the student chooses an incorrect answer, continue below.*
Additional administration notes: ▪ *If the student responds incorrectly or not at all, present the task with support as scripted.* ▪ *Once additional support is provided, the task may not be re-administered for a score of 3.*		
<u>Present</u>: M7_Sample 3.2 <u>Say</u>: **For each hour Susan worked,**…*point to 1 hour in the legend*…**she earned $5.00.** *Point to $5.00 bill in the legend.* **Susan worked 2 hours on Friday,**…*point to the two clocks after Friday*…**and she worked 3 hours on Saturday.** *Point to the three clocks after Saturday.* **Susan earned $5.00 per hour. How much money did Susan earn altogether?**	2	$25.00 *If you believe the student's correct response was unintentional, reorder the answer options to B, C, A (instead of A, B, C). Repeat the question. If the student chooses the correct answer again, the task should be scored a 2. If the student chooses an incorrect answer, the task should be scored a 1.*
<u>Re-present</u> the answer options in order. *Point to each option as you say it.* **A. $10.00** **B. $25.00** **C. $30.00**	1	$10.00 or $30.00
	0	Unrelated or none

Grade 7 Math 7.1.2.5: Students will use proportional reasoning to solve problems involving ratios in various contexts.

1 hour = (a five dollar bill)

Friday, 2 hours = ?

Saturday, 3 hours = ?

Susan earned $5.00 per hour. She worked 2 hours on Friday and 3 hours on Saturday. How much money did Susan earn altogether?

1 Hour   = $5.00

| Friday | |
| Saturday | |

Susan earned $5.00 per hour. How much money did Susan earn altogether?

M7_Sample 3
A

$10.00

M7_Sample 3
B

$25.00

M7_Sample 3
C

$30.00

MTAS Mathematics Object List (OPTIONAL)
Mathematics Released Questions

The MTAS Object Lists for mathematics and science include examples of objects and other variations in the presentation of the MTAS tasks. Some common ways to vary the task presentation include (1) using Braille text and tactile graphics, enlarging, or texturizing print and (2) supplementing numbers in tasks with some type of counter. These variations may be used with nearly all math and science tasks unless explicitly prohibited in the task script.

Calculators are allowed on all tasks but may be especially useful for tasks involving basic operations (addition, multiplication, subtraction, and division). Students may use **any** type of calculator on the MTAS with which they have demonstrated appropriate competence during classroom instruction.

Keep in mind that these lists provide recommendations only; test administrators may use different objects and/or text formats to make tasks more accessible for individual students as long as students are not provided with additional content information. For example, several math tasks incorporate a number line with an unlabeled point. Number lines used in classrooms may not be appropriate for all of the MTAS tasks if all points are labeled.

Please contact MDE (mde.testing@state.mn.us) if you have questions about objects that may be used to represent MTAS tasks.

Task	Objects
Grade 7 Sample 01	**Present task using pictures, play money, and textured letters or Braille:** 1 clock to represent 1 hour 8 dollars 1 letter: h **Present additional information for score 2:** 2 additional clocks 16 additional dollars **Present answer options using play money and textured graphics or Braille:** h + 8 h − 8 h × 8

Grade 7 Sample 02	**Present task using objects and textured key or Thermaform/Piaf pages:** Objects to represent Maple Town and Pineville 1 four inch pipe cleaner 1 one inch pipe cleaner Textured key: 1 inch = 3 miles **Present additional information for score 2 using objects or Thermaform/Piaf pages:** 4 one-inch pipe cleaners **Present answer options using counters or Braille numbers:** 4 7 12 **Note:** Total counters needed: 23 counters	
Grade 7 Sample 03	**Present task using pictures, objects, and textured labels or Thermaform/Piaf pages. A calculator may also be used.** Objects to represent Friday and Saturday 1 five-dollar bill Textured labels: Friday, 2 hours; Saturday, 3 hours **Present additional information for score 2 using pictures, objects, and/or Thermaform/Piaf pages:** Sticky string for table outlines 6 clocks (pictures or objects) Objects from previous presentation **Present answer options using play money, textured pieces, or Braille:** 2 five-dollar bills 5 five-dollar bills 6 five-dollar bills **Note:** Total five-dollar bills needed: 14 five-dollar bills	