



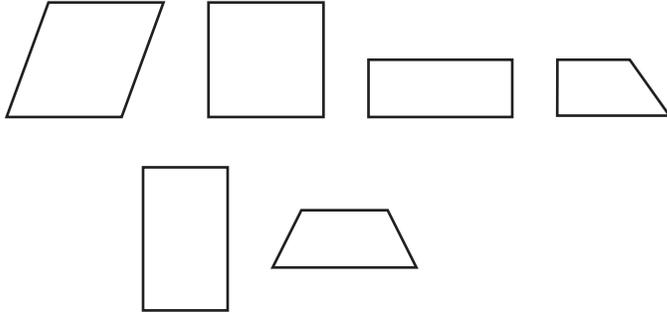
**NEW ENGLAND
COMMON ASSESSMENT PROGRAM**

**Released Items
Support Materials
2005**

**Grade 4
Mathematics**

NECAP 2005 RELEASED ITEMS
GRADE 4 MATHEMATICS

11 Look at these six shapes.



Write one way the six shapes are alike.

Scoring Guide:

Score	Description
1	Student names one correct attribute of all given shapes.
0	Response is incorrect or contains some correct work that is irrelevant to the skill or concept being measured.
Blank	no response

Sample Responses:

They all have 4 sides.

They all have 4 angles.

They all have 1 pair of parallel sides.

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GRADE 4 MATHEMATICS

SCORE POINT 1 (EXAMPLE A)

They all have 4 angles.

Student names one correct attribute.

SCORE POINT 1 (EXAMPLE B)

These shapes are alike because they each have four sides

Student names one correct attribute.

SCORE POINT 0 (EXAMPLE A)

There all hexigons

Student names an incorrect attribute.

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GRADE 4 MATHEMATICS

- 12 This clock shows the time Terry needed to be at soccer practice.



He was 5 minutes late to practice.

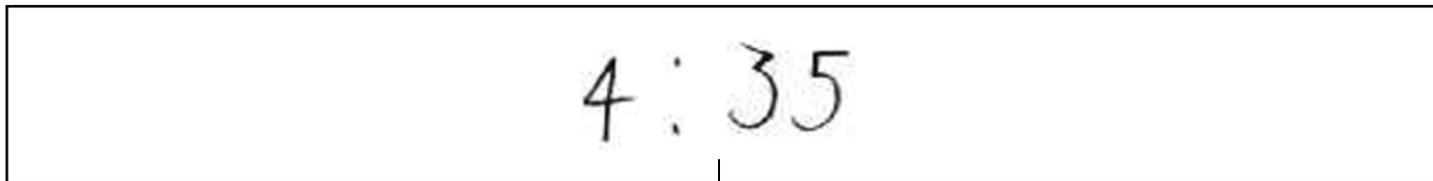
What time did Terry arrive at soccer practice?

Scoring Guide:

Score	Description
1	Student provides correct time, 4:35 .
0	Response is incorrect or contains some correct work that is irrelevant to the skill or concept being measured.
Blank	no response

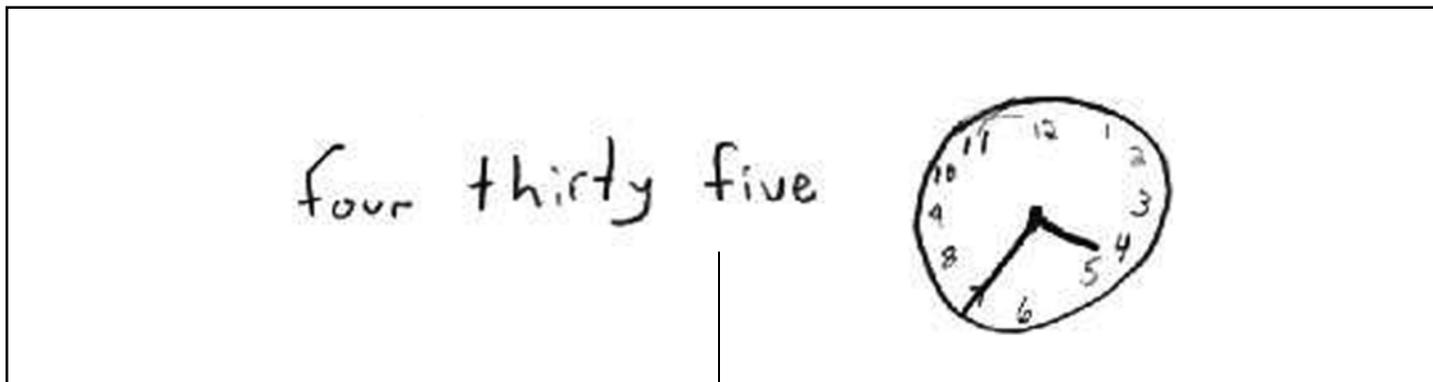
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SCORE POINT 1 (EXAMPLE A)



Student provides correct time.

SCORE POINT 1 (EXAMPLE B)



Student provides correct time.
Note: Student would receive credit for either a correct written response or a correct pictorial response.

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SCORE POINT 0 (EXAMPLE A)

4:25

Student's answer is incorrect.

SCORE POINT 0 (EXAMPLE B)

6:24

Student's answer is incorrect.

**NECAP 2005 RELEASED ITEMS
GRADE 4 MATHEMATICS**

- 13 Look at this number sentence.

$$\triangle + \triangle + \triangle = 7 + 2$$

Each triangle has the same value.

What is the value of each triangle?

Scoring Guide:

Score	Description
1	Student gives correct value of triangle, 3 .
0	Response is incorrect or contains some correct work that is irrelevant to the skill or concept being measured.
Blank	no response

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GRADE 4 MATHEMATICS

SCORE POINT 1 (EXAMPLE A)



Student gives the correct value.

SCORE POINT 1 (EXAMPLE B)

Look at this number sentence.

Student gives the correct value.

$$\begin{array}{cccc} 3 & 3 & 3 & 9 \\ \Delta & + & \Delta & + & \Delta & = & 7 & + & 2 \end{array}$$

Each triangle has the same value.

What is the value of each triangle?

9 First I add $7+2=$
Then I thought what $\times 3 = 9$?
I knew $3 \times 3 = 9$ so that is your
answer.

Although included and correct, explanation is not necessary for credit.

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GRADE 4 MATHEMATICS

SCORE POINT 0 (EXAMPLE A)



A large rectangular box contains a handwritten number '9' in the center. A vertical line extends downwards from the bottom center of this box to a smaller rectangular box below it.

Student's answer is incorrect.

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GRADE 4 MATHEMATICS**

- 14 Fran has three coins. Each coin has a different value. The total value of the coins is less than 30¢.

How much money does Fran have? Use a dollar sign (\$) and a decimal point (.) to write your answer. Use numbers, words, or pictures to show your work or explain how you know.

Scoring Guide:

Score	Description
2	Student has correct answer, \$0.16 , written with a dollar sign and a decimal point, and gives appropriate strategy or explanation.
1	Student has correct answer, written with a dollar sign and a decimal point. OR Student shows appropriate strategy or explanation.
0	Response is incorrect or contains some correct work that is irrelevant to the skill or concept being measured.
Blank	no response

Sample Response:

\$0.16; She has a penny, nickel, and dime.

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SCORE POINT 2 (EXAMPLE A)

Handwritten student work for Example A. At the top, the student has written three coins in circles: a dime (10), a nickel (5), and a penny (1), followed by an equals sign and the number 16. Below this, the student has written the amount \$0.16. A vertical line connects the student's work to the evaluation box below.

Student provides appropriate strategy and has correct answer, with a dollar sign and a decimal point. (2 points)

SCORE POINT 2 (EXAMPLE B)

Handwritten student work for Example B. On the left, the student has written the amount \$0.16. To the right, the student has written a paragraph of text: "I know that Fran has \$0.16 because a dime, a nickel and a penny are both different values and they add up to be less than 30¢." A diagonal line connects the student's work to the evaluation box below.

Student provides appropriate strategy and has correct answer, with a dollar sign and a decimal point. (2 points)

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SCORE POINT 1 (EXAMPLE A)

\$0.16

Student has correct answer (1 point) with no strategy or work shown (0 points).

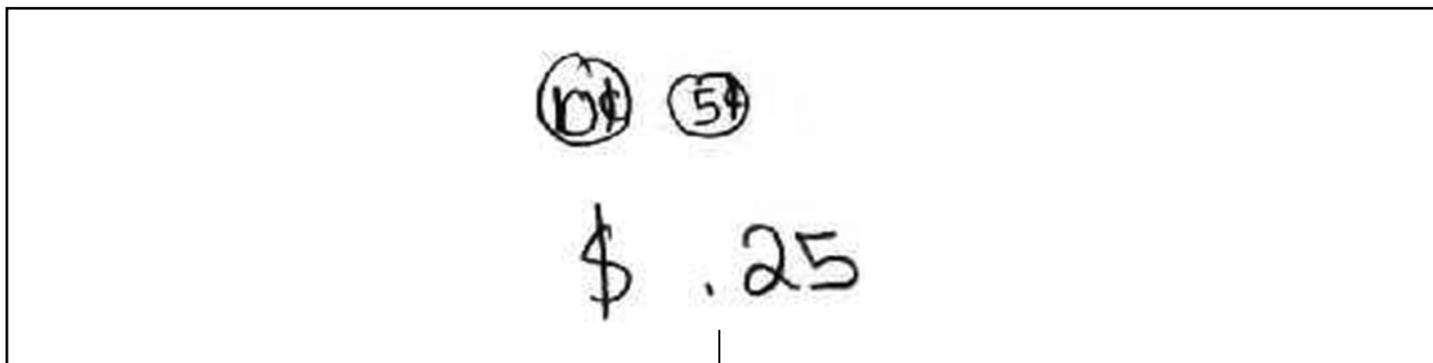
SCORE POINT 1 (EXAMPLE B)

.11¢
.5¢
.10¢ 16¢

Student provides an appropriate strategy (1 point) but does not write answer with a dollar sign and a decimal point (0 points).

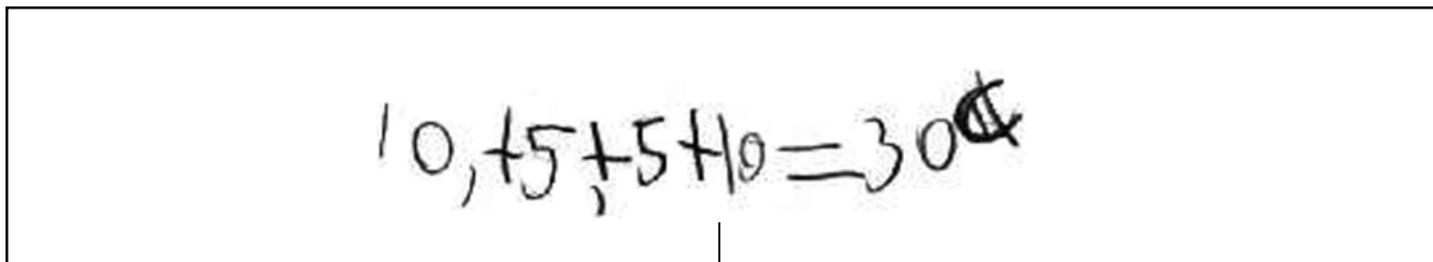
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GRADE 4 MATHEMATICS

SCORE POINT 0 (EXAMPLE A)



Student's answer is incorrect.
(0 points)

SCORE POINT 0 (EXAMPLE B)



Student's strategy is incorrect.
(0 points)

**NECAP 2005 RELEASED ITEMS
GRADE 4 MATHEMATICS**

- 15 Jeanne earned \$12.50 babysitting and \$9.75 mowing the lawn. Then she spent \$2.75. How much money does Jeanne have now? Show your work or explain how you know.

Scoring Guide:

Score	Description
2	Student writes correct answer, \$19.50 , and provides appropriate strategy or explanation.
1	Student writes correct answer. OR Student provides appropriate strategy or explanation and one correct computation.
0	Response is incorrect or contains some correct work that is irrelevant to the skill or concept being measured.
Blank	no response

Sample Response:

$$\$12.50 + \$9.75 = \$22.25, \text{ and } \$22.25 - \$2.75 = \$19.50$$

Notes:

- An equation is an acceptable explanation.
- One transposition or one copy error (can only drop or transpose 1 digit) with all computations correct receives a score 2

Example of transposition error: $\$12.50 + \$9.57 = \$22.07$, and $\$22.07 - \$2.75 = \$19.32$

Example of copy error: $\$12.50 + \$9.75 = \$22.25$, and $\$22.25 - \$2.55 = \$19.70$

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SCORE POINT 2 (EXAMPLE A)

The
answer is \$19.50

$$\begin{array}{r} 12.50 \\ + 9.75 \\ \hline 22.25 \end{array}$$
$$\begin{array}{r} 22.25 \\ - 2.75 \\ \hline 19.50 \end{array}$$

Student provides an appropriate strategy and has correct answer. (2 points)

SCORE POINT 2 (EXAMPLE B)

If you take \$2.75 and subtract that from \$9.75 you get \$7.00. Then if you take \$7.00 and add it to \$12.50 you get \$19.50. She has \$19.50

Student provides an appropriate strategy and has correct answer. (2 points)

NECAP 2005 RELEASED ITEMS
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SCORE POINT 1 (EXAMPLE A)

Jeanne has

Answer
19.50
Left

Student has correct answer (1 point) with no strategy or work shown (0 points).

SCORE POINT 1 (EXAMPLE B)

$$\begin{array}{r} \$12.50 \\ + \$9.75 \\ \hline \$22.25 \end{array}$$
$$\begin{array}{r} \$22.25 \\ - \$2.75 \\ \hline 20.50 \end{array}$$

Student provides an appropriate strategy with one correct computation. (1 point)

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SCORE POINT 0 (EXAMPLE A)

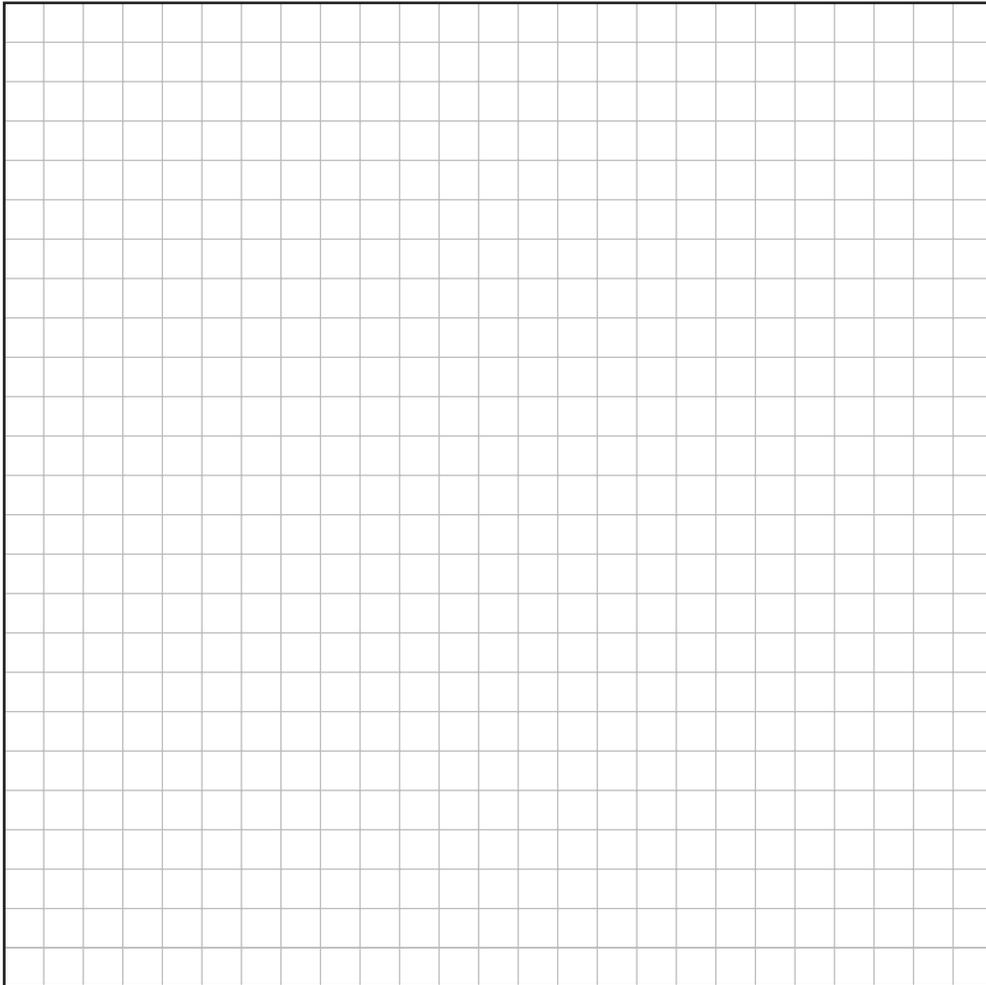
$$\$12.50 + \$9.75 = \$13.25$$

Student's strategy is incorrect.
(0 points)

NECAP 2005 RELEASED ITEMS
GRADE 4 MATHEMATICS

- 16 Maria wants to make a garden with an area of 24 square feet. The garden must be rectangular.

On the grid below, draw 2 different rectangular gardens Maria could make. The distance around each garden must be different.



Key

represents 1 square foot

**NECAP 2005 RELEASED ITEMS
GRADE 4 MATHEMATICS**

Scoring Guide:

Score	Description
2	Student draws two distinct rectangles with dimensions yielding an area of 24 square feet.
1	Student draws one distinct rectangle with dimensions yielding an area of 24 square feet.
0	Response is incorrect or contains some correct work that is irrelevant to the skill or concept being measured.
Blank	no response

Correct dimension examples:

1 foot by 24 feet

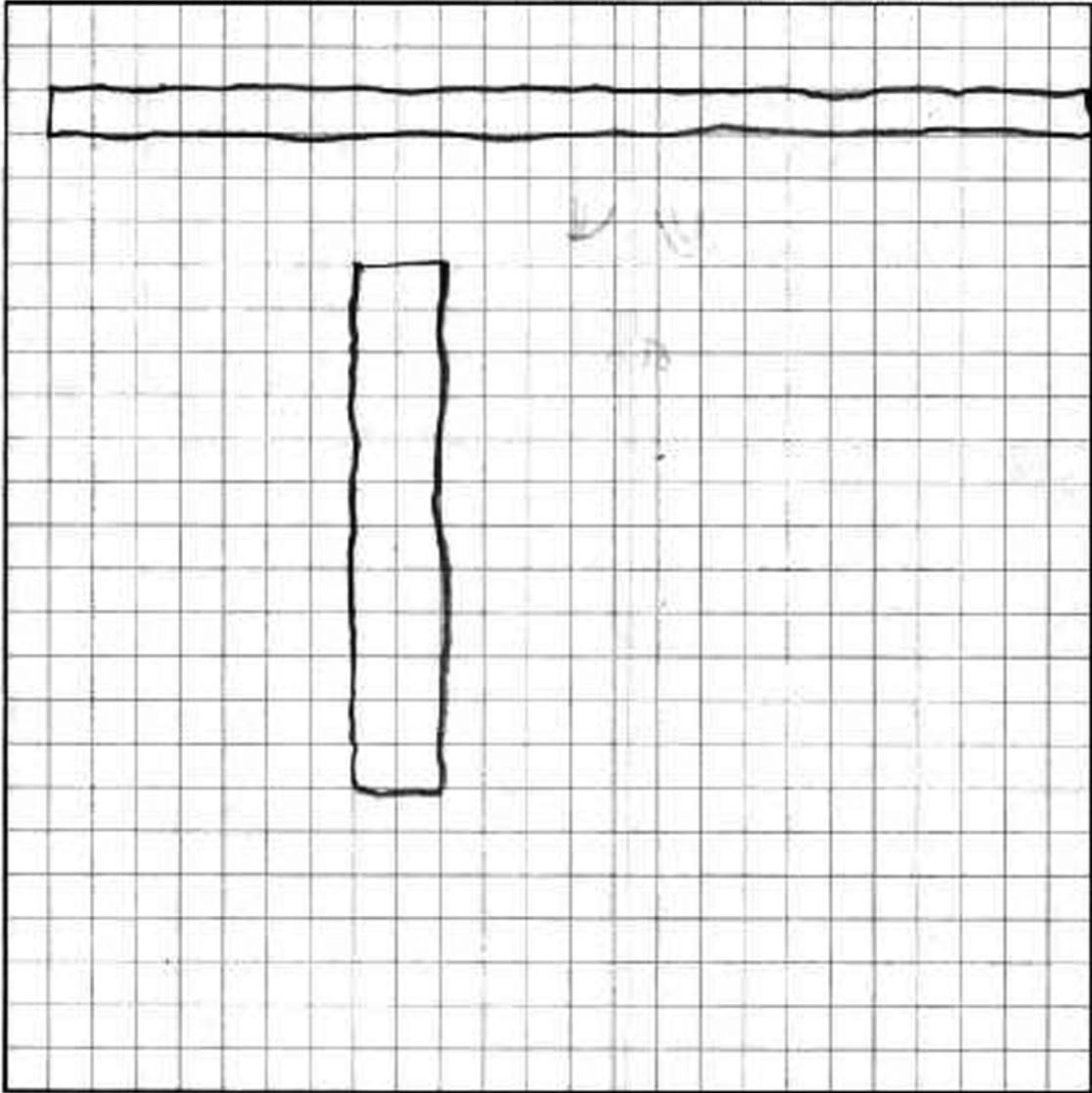
2 feet by 12 feet

3 feet by 8 feet

4 feet by 6 feet

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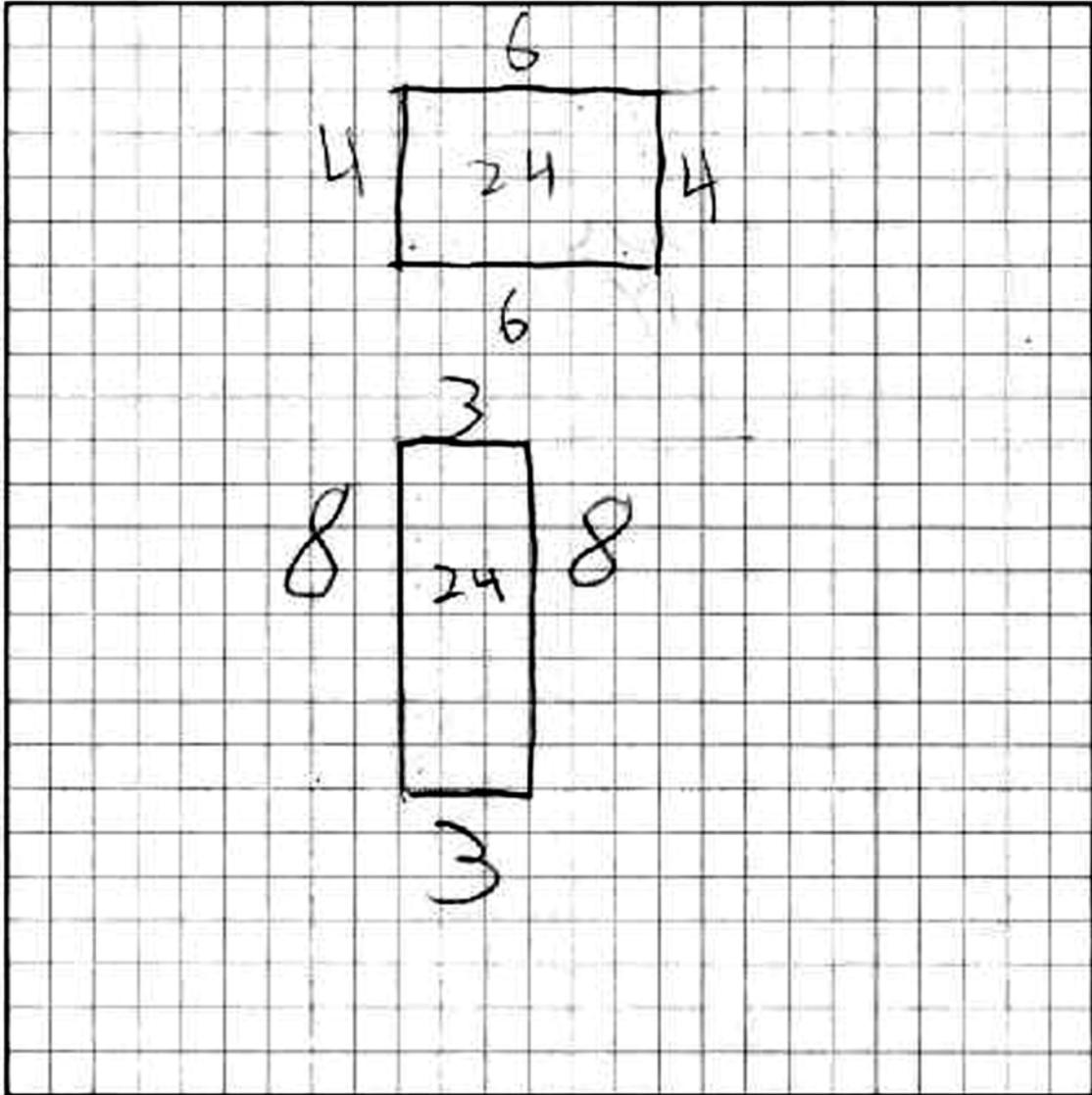
SCORE POINT 2 (EXAMPLE A)



Student draws two noncongruent rectangles, each with an area of 24 square feet. (2 points)

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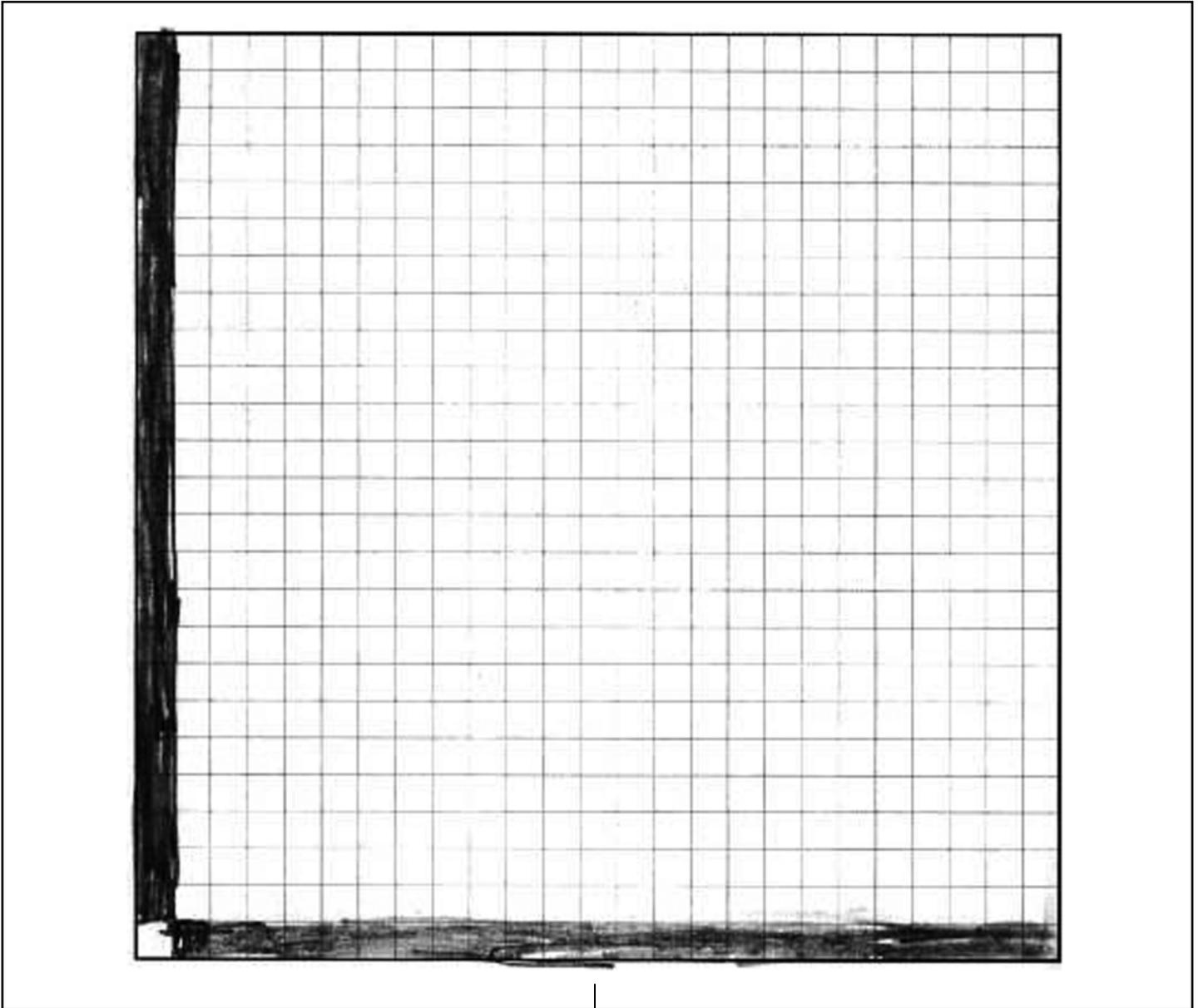
SCORE POINT 2 (EXAMPLE B)



Student draws two noncongruent rectangles, each with an area of 24 square feet. (2 points)

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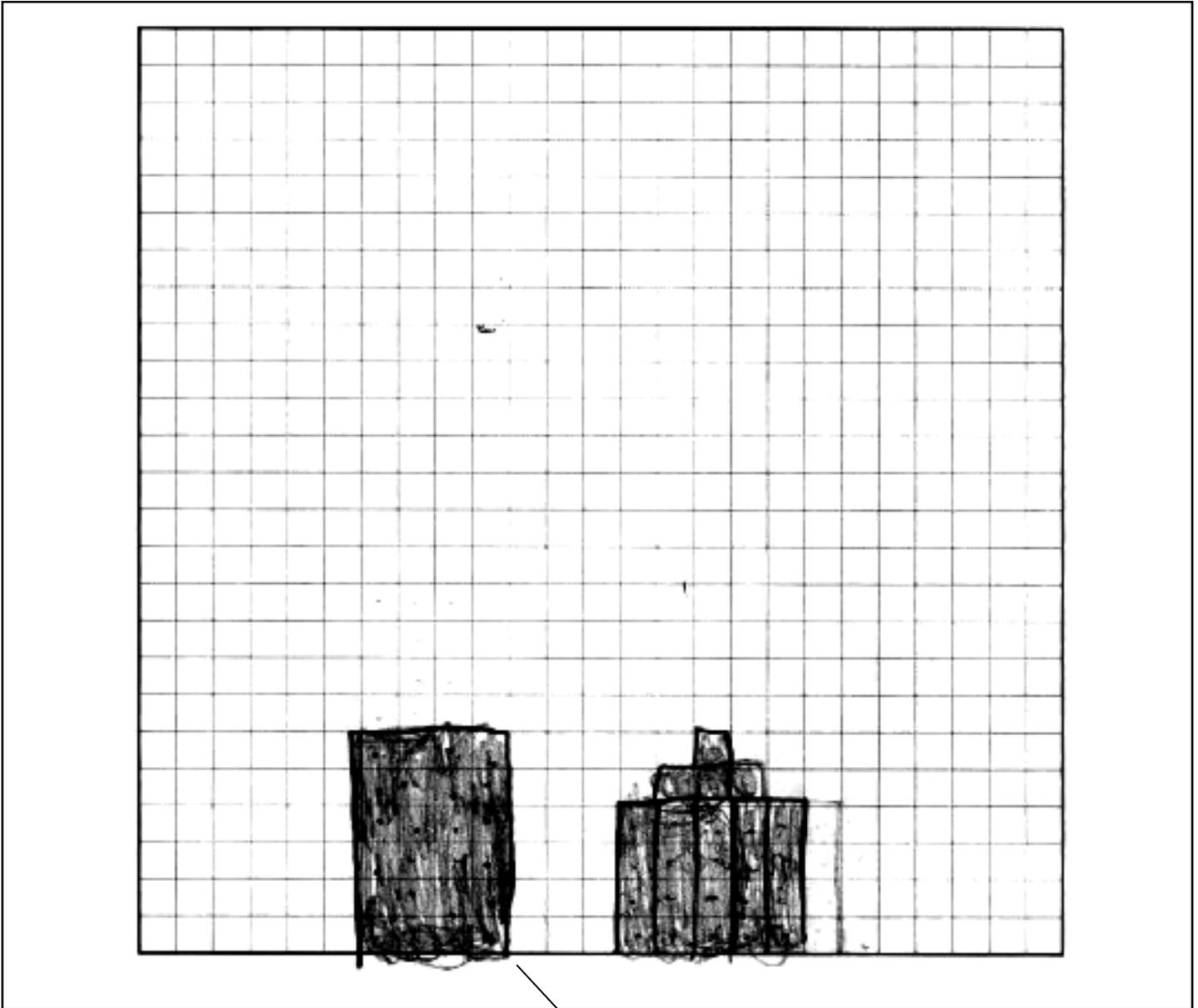
SCORE POINT 1 (EXAMPLE A)



Student draws two congruent rectangles, each with an area of 24 square feet. (1 point)

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SCORE POINT 1 (EXAMPLE B)



Student draws one rectangle with an area of 24 square feet. (1 point)

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SCORE POINT 0 (EXAMPLE A)

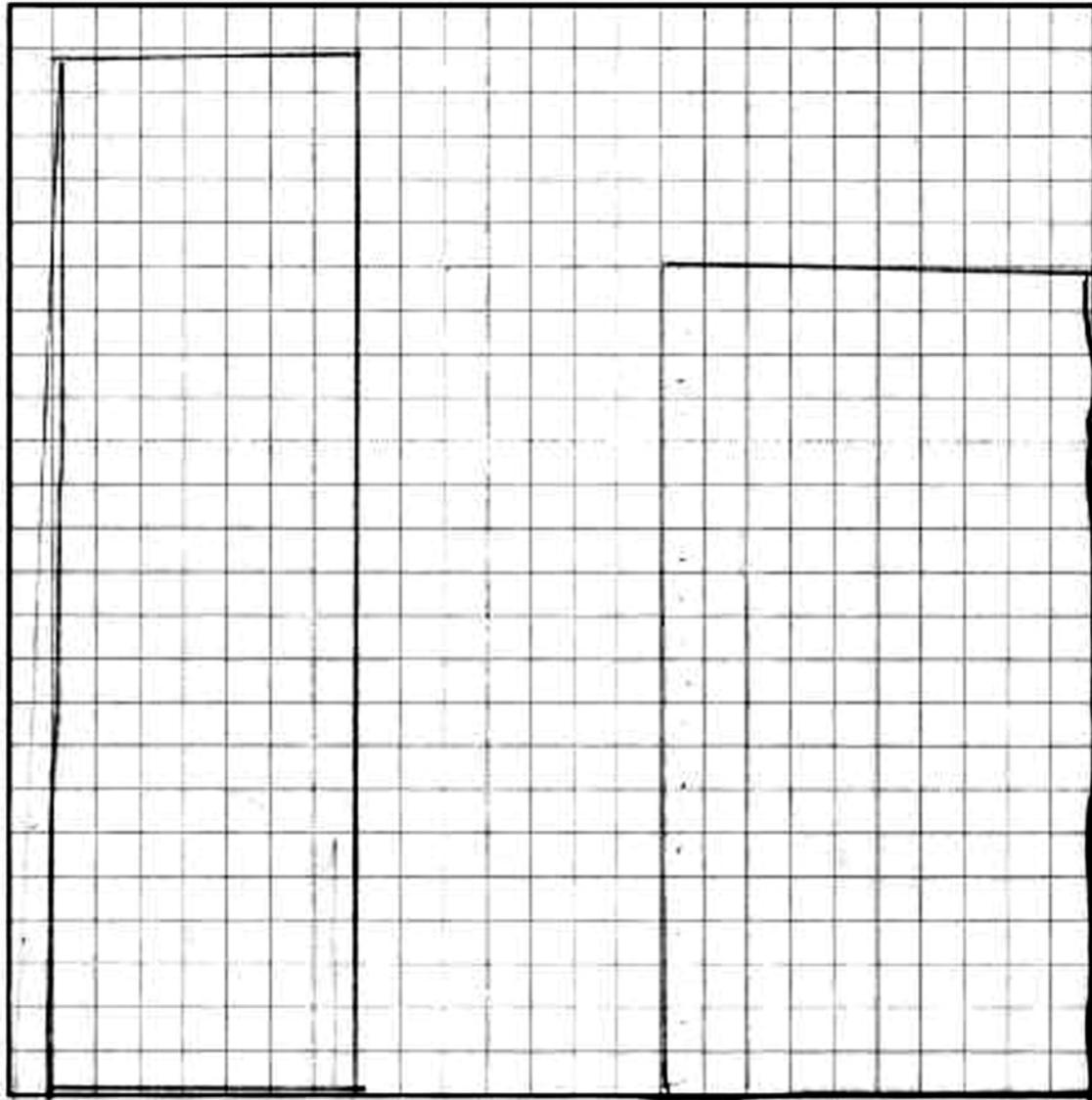
The student's work is shown on a grid background. At the top left, a square with side length 6 is circled. The word "ANSWER" is written to its right. Inside the square, the following is written:
Top side: 6
Left side: 6
Right side: 6
Bottom side: 6
Area: $A = 2 \times W$
Perimeter: $P = 2L + 2W$
 24 sqft

Below this, a rectangle with dimensions 5 by 7 is drawn. The following is written:
Top side: 5
Left side: 7
Right side: 7
Bottom side: 5
Area: $A = L \times W$
Perimeter: $P = 2L + 2W$
 24 sqft

Student's response is incorrect because student shows two noncongruent rectangles with the same perimeter and different areas. (0 points)

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SCORE POINT 0 (EXAMPLE B)



Student shows two noncongruent rectangles that do not have the correct area of 24 square feet. (0 points)