



**Mathematics
Grade 8
Scoring Guide for
Released Item #55
Draw a Rectangle
Fall 2006**



- 55 In your answer document, draw a rectangle with an area of 12 square centimeters. Label the side lengths.

ANSWER THIS ITEM IN YOUR ANSWER DOCUMENT.

SHOW ALL YOUR WORK IN YOUR ANSWER DOCUMENT.

Mathematics Rubric for *Draw a Rectangle*

Scoring Rubric

- The student draws a rectangle. **(1 point)**
- The rectangle has an area of 12. **(1 point)**
- The student labels the side lengths correctly (labels when multiplied together = 12). **(1 point)**
- The student uses the correct unit of linear measure (centimeters). **(1 point)**

Note 1: No credit will be given to figures other than a rectangle.

Note 2: If the student provides an incorrect math statement, the paper **loses 1 point**.

Note 3: Disregard any line grid included within the rectangle if the student labels the side lengths correctly.

4-point response earns all four of the above points

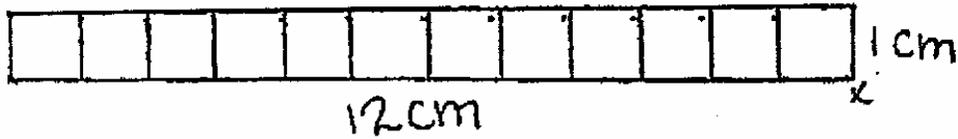
3-point response earns three of the four points

2-point response earns two of the four points

1-point response earns one of the four points

0-point response shows little or no understanding of the item.

Anchor Paper 1 – Score Point 4

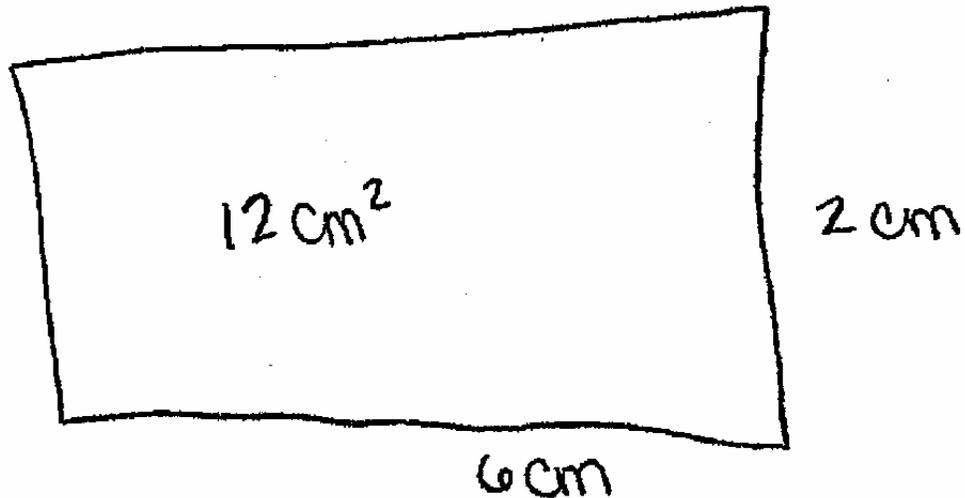
**Anchor Paper 1**
Score Point 4

The response demonstrates complete understanding of the task by providing all 4 parts.

- The student draws a rectangle. **(1 point)**
- The rectangle has an area of 12. 12 square centimeters are drawn within the rectangle and the side lengths multiplied together equal 12. For bullet 2, either way of showing the area is valid. **(1 point)**
- The student labels the side lengths correctly, 12 and 1. **(1 point)**
- The student uses the correct unit of linear measure (*cm*). **(1 point)**

The response earns **4 points**.

Anchor Paper 2 – Score Point 4

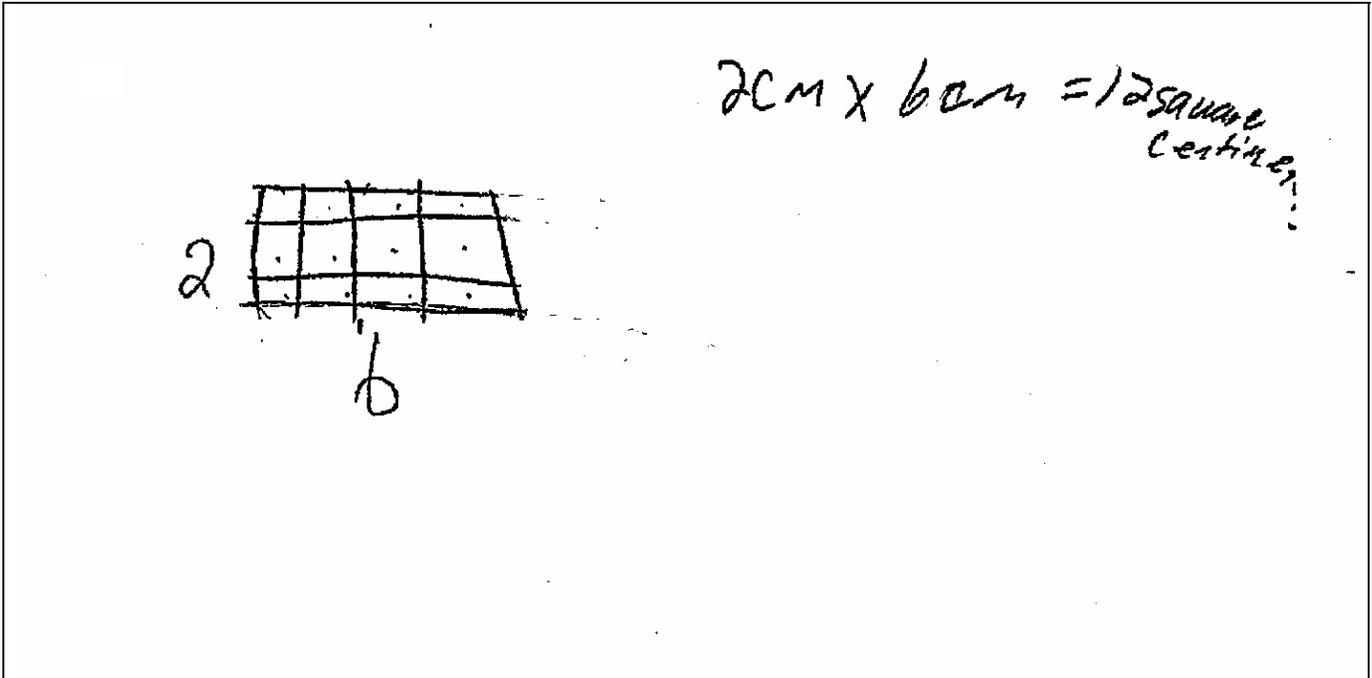
**Anchor Paper 2**
Score Point 4

The response demonstrates complete understanding of the task by providing all 4 parts.

- The student draws a rectangle. Note that students are not required to use a straight-edge, so some reasonable tolerance to the drawing must be given. **(1 point)**
- The rectangle has the correct area because the side lengths multiplied together equal 12. **(1 point)**
- The student labels the side lengths correctly, 2 and 6. **(1 point)**
- The student uses the correct unit of linear measure (*cm*). **(1 point)**

The response earns **4 points**.

Anchor Paper 3 – Score Point 4



Anchor Paper 3

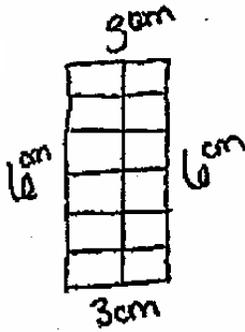
Score Point 4

The response demonstrates complete understanding of the task by providing all 4 parts.

- The student draws a rectangle. **(1 point)**
- The rectangle has the correct area because 12 square centimeters are drawn within the rectangle and the side lengths multiplied together also equal 12. For bullet 2, either approach is valid, so the fact that the grid (3 by 4) doesn't match the labels (2 by 6) is irrelevant. **(1 point)**
- The student labels the side lengths correctly, 2 and 6. **(1 point)**
- The student uses the correct unit of linear measure (*cm*). Note that the "cm" label may be found anywhere on the paper and only needs to be used once. **(1 point)**

The response earns **4 points**.

Anchor Paper 4 – Score Point 3



Anchor Paper 4

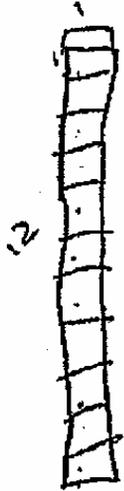
Score Point 3

The response demonstrates understanding of the task by providing 3 of the 4 parts.

- The student draws a rectangle. **(1 point)**
- The rectangle has the correct area because 12 square centimeters are drawn within the rectangle. **(1 point)**
- The student labels the side lengths incorrectly, 6 and 3. **(0 points)**
- The student uses the correct unit of linear measure (*cm*). **(1 point)**

The response earns **3 points**.

Anchor Paper 5 – Score Point 3



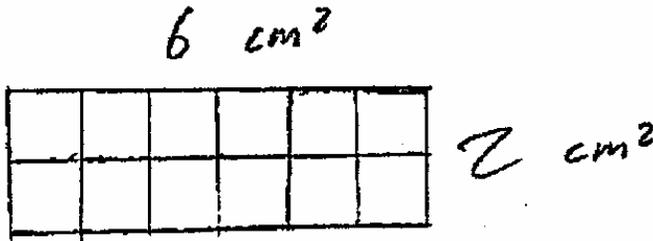
Anchor Paper 5 Score Point 3

The response demonstrates understanding of the task by providing 3 of the 4 parts.

- The student draws a rectangle. **(1 point)**
- The rectangle has the correct area because 12 square centimeters are drawn within the rectangle and the side lengths multiplied together equal 12. **(1 point)**
- The student labels the side lengths correctly, 12 and 1. **(1 point)**
- The student does not use a unit of linear measure. **(0 points)**

The response earns **3 points**.

Anchor Paper 6 – Score Point 3

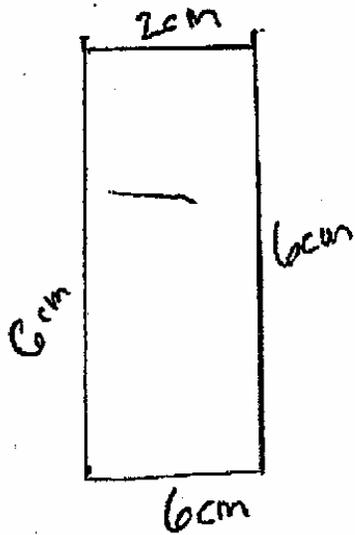
**Anchor Paper 6**
Score Point 3

The response demonstrates understanding of the task by providing 3 of the 4 parts.

- The student draws a rectangle. **(1 point)**
- The rectangle has the correct area because 12 square centimeters are drawn within the rectangle and the side lengths multiplied together equal 12. **(1 point)**
- The student labels the side lengths correctly, 2 and 6. **(1 point)**
- The student uses an incorrect unit of linear measure (cm^2). **(0 points)**

The response earns **3 points**.

Anchor Paper 7 – Score Point 2

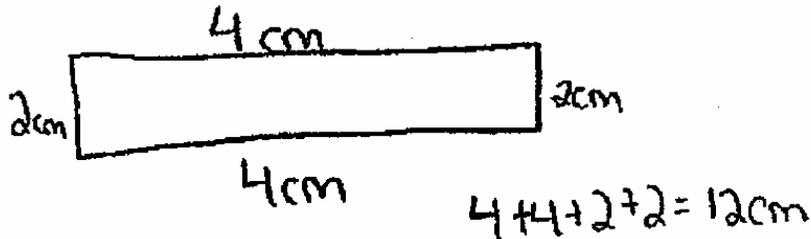
**Anchor Paper 7**
Score Point 2

The response demonstrates partial understanding of the task by providing 2 of the 4 parts.

- The student draws a rectangle. **(1 point)**
- The rectangle does not clearly have an area of 12. One of the short sides is incorrectly labeled 6 which would mean an area of 36. **(0 points)**
- The student labels the side lengths incorrectly. One of the short sides is incorrectly labeled 6. **(0 points)**
- The student uses the correct unit of linear measure (*cm*). **(1 point)**

The response earns **2 points**.

Anchor Paper 8 – Score Point 2



Anchor Paper 8

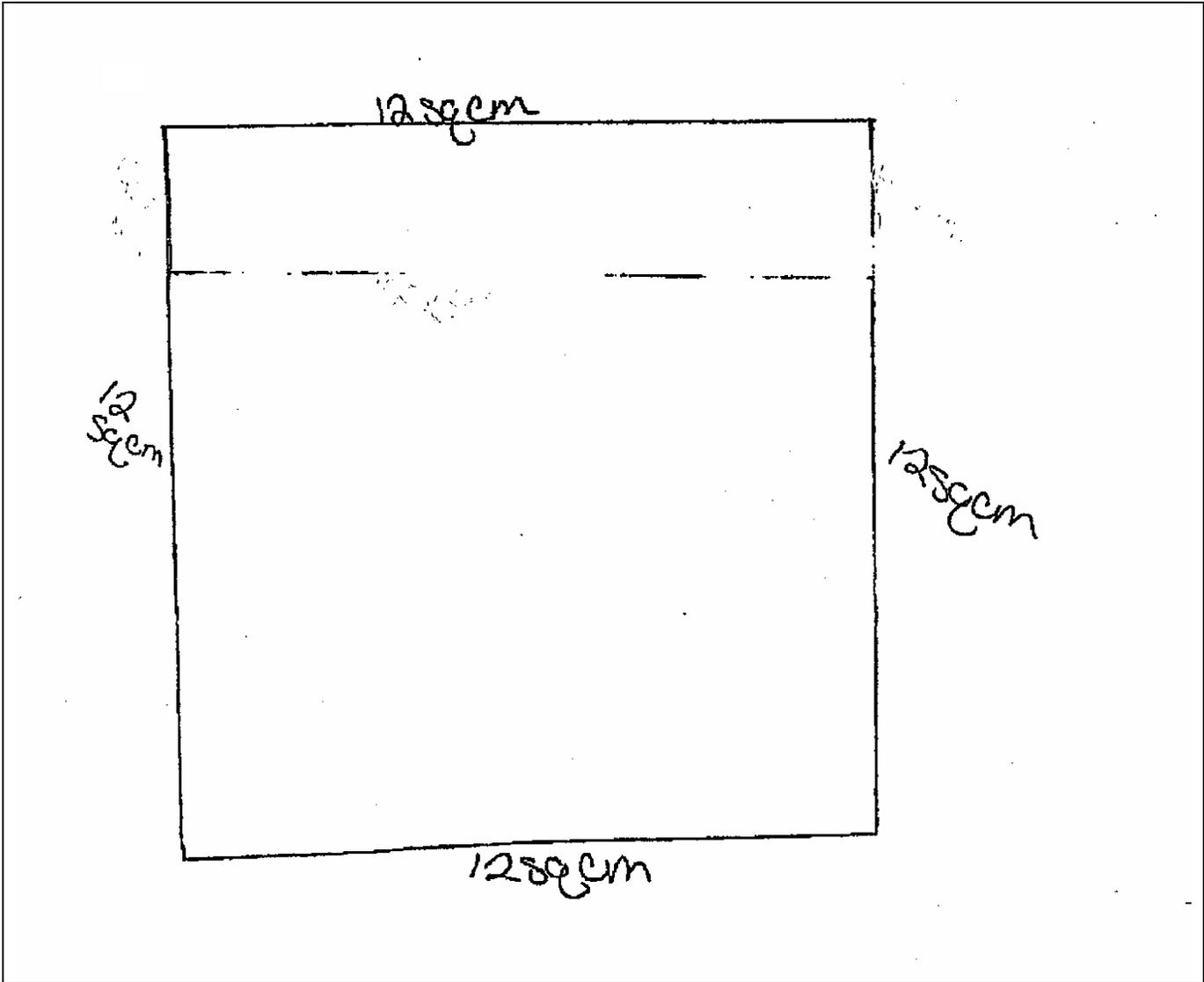
Score Point 2

The response demonstrates partial understanding of the task by providing 2 of the 4 parts.

- The student draws a rectangle. **(1 point)**
- The rectangle has an incorrect area of 8. **(0 points)**
- The student labels the side lengths incorrectly, 2 and 4. **(0 points)**
- The student uses the correct unit of linear measure (*cm*). **(1 point)**

The response earns **2 points**.

Anchor Paper 9 – Score Point 2



Anchor Paper 9

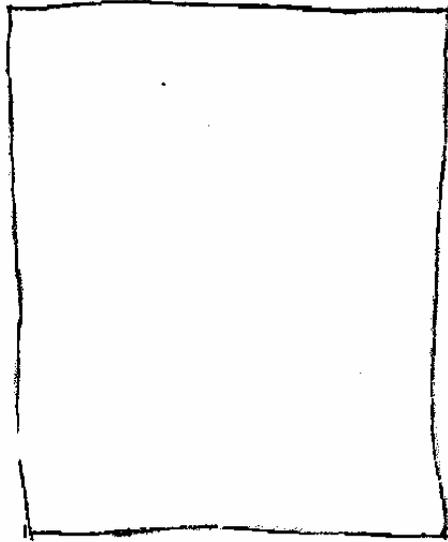
Score Point 1

The response demonstrates some understanding of the task by providing 1 of the 4 parts.

- The student draws a rectangle. Note that a square is also a rectangle. **(1 point)**
- The rectangle has an incorrect area of 144. **(0 points)**
- The student labels the side lengths incorrectly, 12 and 12. **(0 points)**
- The student uses an incorrect unit of linear measure (*sqcm*). **(0 points)**

The response earns **1 point**.

Anchor Paper 10 – Score Point 1



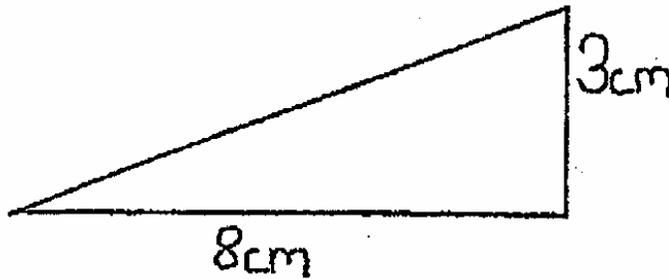
Anchor Paper 10 Score Point 1

The response demonstrates some understanding of the task by providing 1 of the 4 parts.

- The student draws a rectangle. **(1 point)**
- The rectangle has no area shown. **(0 points)**
- The student does not label the side lengths. **(0 points)**
- The student does not use a unit of linear measure. **(0 points)**

The response earns **1 point**.

Anchor Paper 11 – Score Point 0



$$A = \frac{1}{2}b \cdot h$$

$$A = 4 \cdot 3$$

$$A = 12$$

**Anchor Paper 11
Score Point 0**

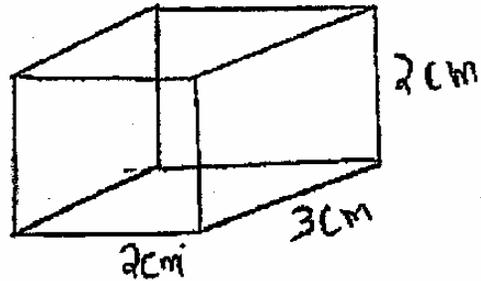
The response demonstrates little understanding of the task.

- The student draws a triangle. Note that no credit will be given to figures other than rectangles. **(Note 1)**

The response earns **0 points**.

Anchor Paper 12 – Score Point 0

2 by 3 by 2



Anchor Paper 12

Score Point 0

The response demonstrates little understanding of the task.

- The student draws a rectangular prism. Note that no credit will be given to figures other than rectangles. **(Note 1)**

The response earns **0 points**.