



# ***New York State Testing Program***

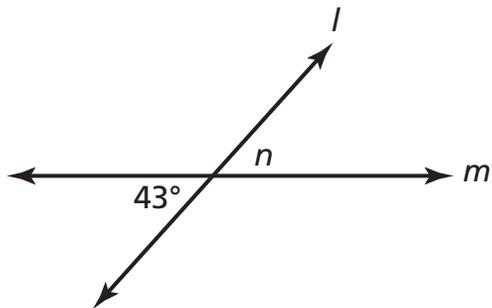
## **Mathematics Test**

Grade **8**

**2009 Scoring Guide Part 2**

**41**

In the diagram below, lines  $l$  and  $m$  intersect. What is the measure of  $\angle n$  in the diagram below?



[not drawn to scale]

**Answer** \_\_\_\_\_ degrees

On the lines below, explain how you determined your answer.

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**QUESTION 41**

**STRAND 3: GEOMETRY**

*Complete and Correct Response:*

- 43 (degrees)

**AND**

- Since angle  $n$  is a vertical angle with the  $43^\circ$  angle, it must be congruent to that angle.

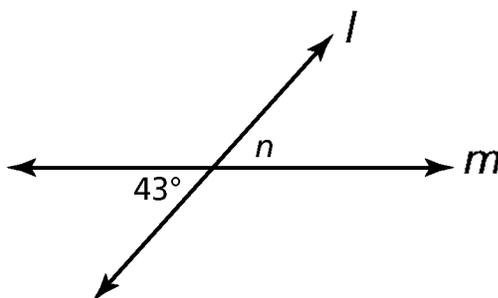
OR other valid response

*Score Points:*

Apply 2-point holistic rubric.

**41**

In the diagram below, lines  $l$  and  $m$  intersect. What is the measure of  $\angle n$  in the diagram below?



[not drawn to scale]

Answer 43 degrees

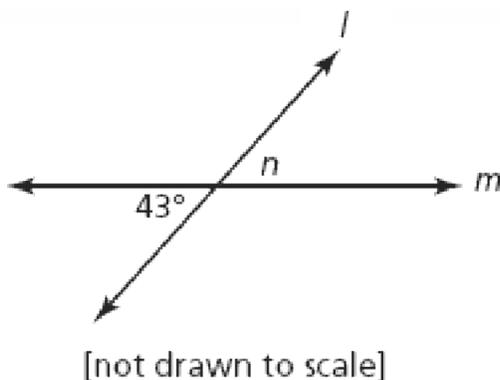
On the lines below, explain how you determined your answer.

43° and angle N are vertical angles. They  
are across from each other and they're also  
congruent. Vertical angles, alt. interior +  
exterior angles, and corresponding ∠s are all  
congruent to each other. They're also both acute.

This response is complete and correct.

Score Point 2

- 41 In the diagram below, lines  $l$  and  $m$  intersect. What is the measure of  $\angle n$  in the diagram below?



Answer 43 degrees

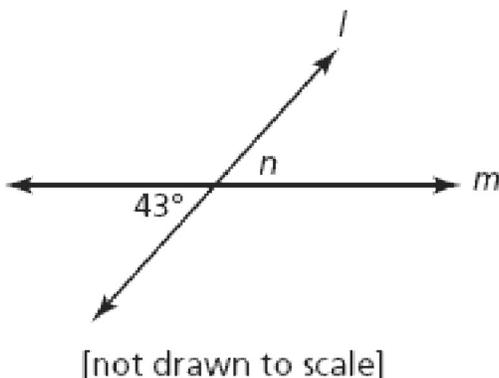
On the lines below, explain how you determined your answer.

n is vertical to 43°.  
Which mean they equal.

This response is complete and correct. The explanation describing the two angles as being vertical is sufficient to demonstrate a thorough understanding of the mathematical concepts embodied in the task.

Score Point 2

- 41** In the diagram below, lines  $l$  and  $m$  intersect. What is the measure of  $\angle n$  in the diagram below?



Answer 43° degrees

On the lines below, explain how you determined your answer.

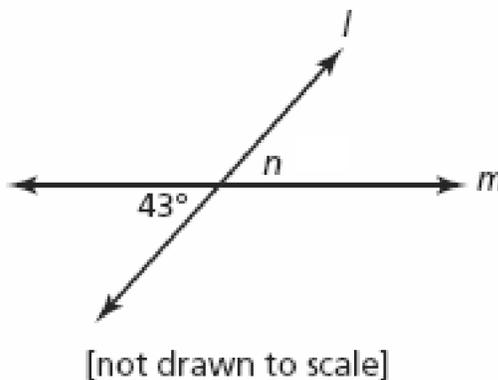
The angle diagonal from  $n$  is  $43^\circ$  and they are both the same because the intersecting line cuts through a  $180^\circ$  line diagonally, making opposite angles equal.

This response is only partially correct. A correct measure for angle  $n$  is provided; however, the use of the terms “diagonal” or “opposite” in describing the angle relationship is vague or unclear and is insufficient to demonstrate a thorough understanding of the task.

Score Point 1

41

In the diagram below, lines  $l$  and  $m$  intersect. What is the measure of  $\angle n$  in the diagram below?



Answer 43° degrees

On the lines below, explain how you determined your answer.

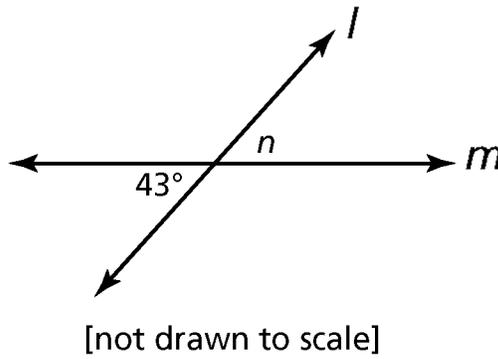
angle n is directly across from the 43°  
so angle n must be 43°

This response is only partially correct. A correct measure for angle  $n$  is provided; however, the explanation describing the angles as being “directly across” is insufficient to demonstrate a thorough understanding of the task.

Score Point 1

**41**

In the diagram below, lines  $l$  and  $m$  intersect. What is the measure of  $\angle n$  in the diagram below?



**Answer** 43 degrees

On the lines below, explain how you determined your answer.

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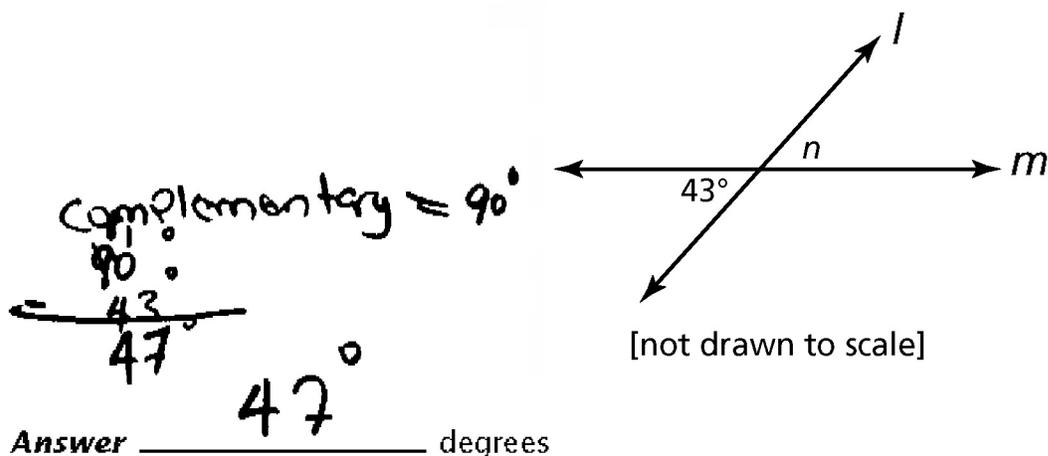
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This response is only partially correct. A correct measure for angle  $n$  is provided; however, the explanation is missing.

**Score Point 1**

- 41 In the diagram below, lines  $l$  and  $m$  intersect. What is the measure of  $\angle n$  in the diagram below?



On the lines below, explain how you determined your answer.

I know that the measure for  $\angle n$  is 47, because a complementary angle is  $90^\circ$ , so I subtract  $90^\circ$  from  $43^\circ$  and the answer for this subtraction problem is  $47^\circ$ .

This response is incorrect. Setting the angles equal to  $90^\circ$  is not sufficient to demonstrate even a limited understanding of the task.

Score Point 0



# ***New York State Testing Program***

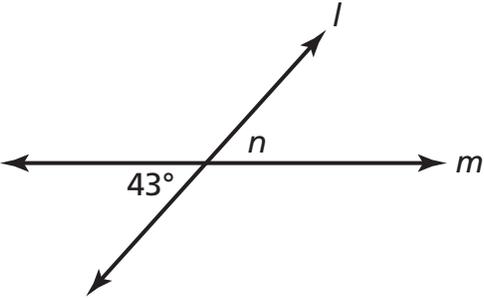
## **Mathematics Test**

Grade **8**

**2009 Practice Test**

41

In the diagram below, lines  $l$  and  $m$  intersect. What is the measure of  $\angle n$  in the diagram below?



[not drawn to scale]

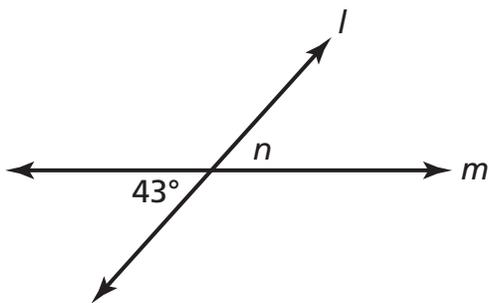
Answer 172 degrees

On the lines below, explain how you determined your answer.

*I measured the length of LN in the diagram and multiplied it with 43°.*

**41**

In the diagram below, lines  $l$  and  $m$  intersect. What is the measure of  $\angle n$  in the diagram below?



[not drawn to scale]

Answer 43 degrees

On the lines below, explain how you determined your answer.

Vertical angles

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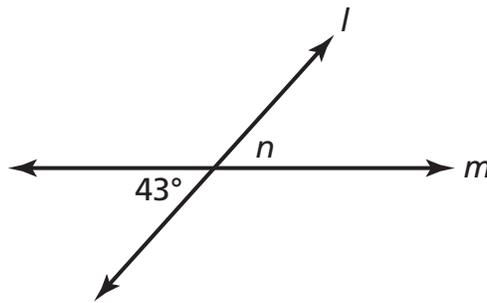
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**41**

In the diagram below, lines  $l$  and  $m$  intersect. What is the measure of  $\angle n$  in the diagram below?



[not drawn to scale]

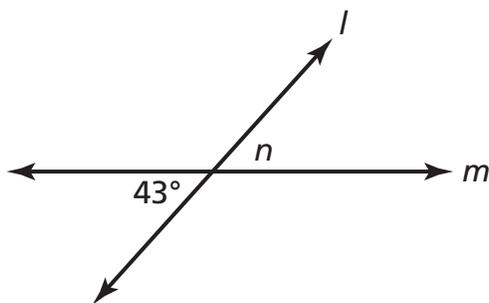
Answer 43 degrees

On the lines below, explain how you determined your answer.

I knew the acute angle equaled  
43° and a line equals 180° so  
I subtracted 43 from 180 and  
got 137°. Then to find  $n$  I subtracted  
137° from 180° and got 43° as  
my answer

41

In the diagram below, lines  $l$  and  $m$  intersect. What is the measure of  $\angle n$  in the diagram below?



[not drawn to scale]

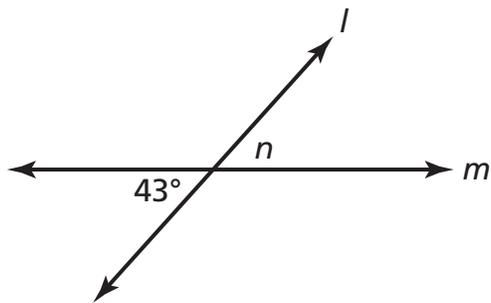
Answer 43 degrees

On the lines below, explain how you determined your answer.

I determined my answer because angle  $n$  is a corresponding angle to the angle measure  $43^\circ$  and corresponding angles have the same degree measure.

41

In the diagram below, lines  $l$  and  $m$  intersect. What is the measure of  $\angle n$  in the diagram below?



[not drawn to scale]

Answer 43° degrees

On the lines below, explain how you determined your answer

They are opposite and they are  
both acute angles. Therefore they  
are both 43°.

# 8<sup>th</sup> GRADE MATHEMATICS

Name: \_\_\_\_\_

## PRACTICE SET ANSWER KEY

PS 1	(0-2)	1
PS 2	(0-2)	1
PS 3	(0-2)	0
PS 4	(0-2)	1
PS 5	(0-2)	2
PS 6	(0-2)	2
PS 7	(0-2)	0
PS 8	(0-2)	2
PS 9	(0-2)	1
PS 10	(0-2)	2
PS 11	(0-2)	2
PS 12	(0-2)	0
PS 13	(0-2)	1
PS 14	(0-2)	1
PS 15	(0-2)	2
PS 16	(0-2)	2
PS 17	(0-2)	1
PS 18	(0-2)	0
PS 19	(0-2)	2
PS 20	(0-2)	1
PS 21	(0-3)	2
PS 22	(0-3)	3
PS 23	(0-3)	0
PS 24	(0-3)	1
PS 25	(0-3)	2

PS 26	(0-3)	3
PS 27	(0-3)	1
PS 28	(0-3)	0
PS 29	(0-3)	1
PS 30	(0-3)	2
PS 31	(0-2)	1
PS 32	(0-2)	0
PS 33	(0-2)	2
PS 34	(0-2)	2
PS 35	(0-2)	1
PS 36	(0-2)	1
PS 37	(0-2)	2
PS 38	(0-2)	1
PS 39	(0-2)	1
PS 40	(0-2)	2
PS 41	(0-2)	1
PS 42	(0-2)	0
PS 43	(0-2)	2
PS 44	(0-2)	2
PS 45	(0-2)	1
PS 46	(0-2)	0
PS 47	(0-2)	2
PS 48	(0-2)	1
PS 49	(0-2)	2
PS 50	(0-2)	1

