

Directions: Read each question carefully. Circle the letter that best answers the question.

2.1C

- 14. The matrix below gives data about skirts and blouses in stock at a clothing store.**

		Red	Blue	Yellow
Skirts	[4	8	2
Blouses	[6	4	8

Which matrix below shows a doubling of the inventory at the store?

- A** $\begin{bmatrix} 2 & 4 & 1 \\ 3 & 2 & 4 \end{bmatrix}$
- B** $\begin{bmatrix} 8 & 16 & 4 \\ 6 & 4 & 8 \end{bmatrix}$
- C** $\begin{bmatrix} 8 & 16 & 4 \\ 12 & 8 & 16 \end{bmatrix}$
- D** $\begin{bmatrix} 4 & 8 & 2 \\ 12 & 8 & 16 \end{bmatrix}$

2.2A

- 15. An auto mechanic tells John that labor is \$47 per hour. If it takes the mechanic two hours and ten minutes to fix John's car, estimate how much the labor will cost.**

- A** \$47
- B** \$84
- C** \$100
- D** \$150

2.2B

- 16. Which would be a good approximation for $\sqrt{10,005}$?**

- A** 100; because $\sqrt{10,000}$ is $\sqrt{100} \cdot \sqrt{100}$
- B** 105; because $\sqrt{100}$ is 10 and $\sqrt{25}$ is 5
- C** 5000; because one-half of 10,000 is 5000
- D** 1000; because $(1000)^2$ is 10,000

Algebra

1.1A

- 17. What is the next number in this sequence?**

1, 1, 2, 3, 5, 8, ...

- A** 3
- B** 12
- C** 13
- D** 15

1.1B

- 18. Janet recorded the data from her experiment in the following chart.**

x	y
0	6
1	8
2	10
3	12
4	14

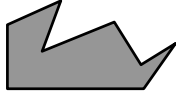
Which of the following equations represents this data?

- A** $y = x + 6$
- B** $y = x + 3$
- C** $y = 2x + 6$
- D** $y = x + 2y$

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2.1C

48. Look at this figure.

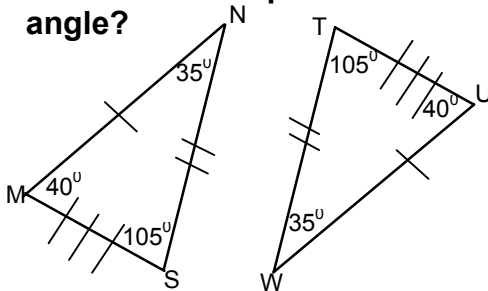


Which of the following is NOT congruent with the above figure?

- A
- B
- C
- D

2.1D

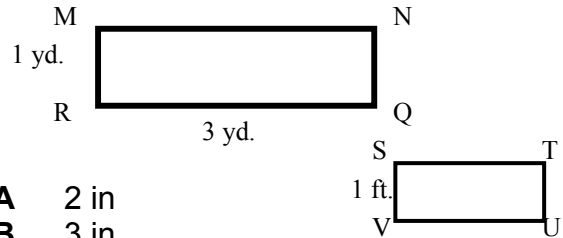
49. If $\triangle MNS$ is similar to $\triangle UWT$, then $\angle N$ corresponds to what angle?



- A $\angle M$
- B $\angle W$
- C $\angle U$
- D $\angle T$

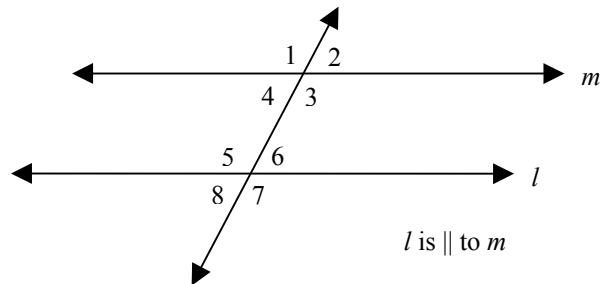
2.1E

50. If the rectangle MNQR is similar to rectangle STUV, find the measure of ST.



- A 2 in
- B 3 in
- C 2 ft
- D 3 ft

Use the diagram below to answer questions 51 and 52.



2.1F

51. Which of the following pairs of angles are congruent?

- A $\angle 1$ and $\angle 5$
- B $\angle 5$ and $\angle 6$
- C $\angle 5$ and $\angle 8$
- D $\angle 2$ and $\angle 7$

2.1F

52. Which of the following pairs of angles are supplementary?

- A $\angle 2$ and $\angle 4$
- B $\angle 1$ and $\angle 5$
- C $\angle 6$ and $\angle 7$
- D $\angle 5$ and $\angle 7$

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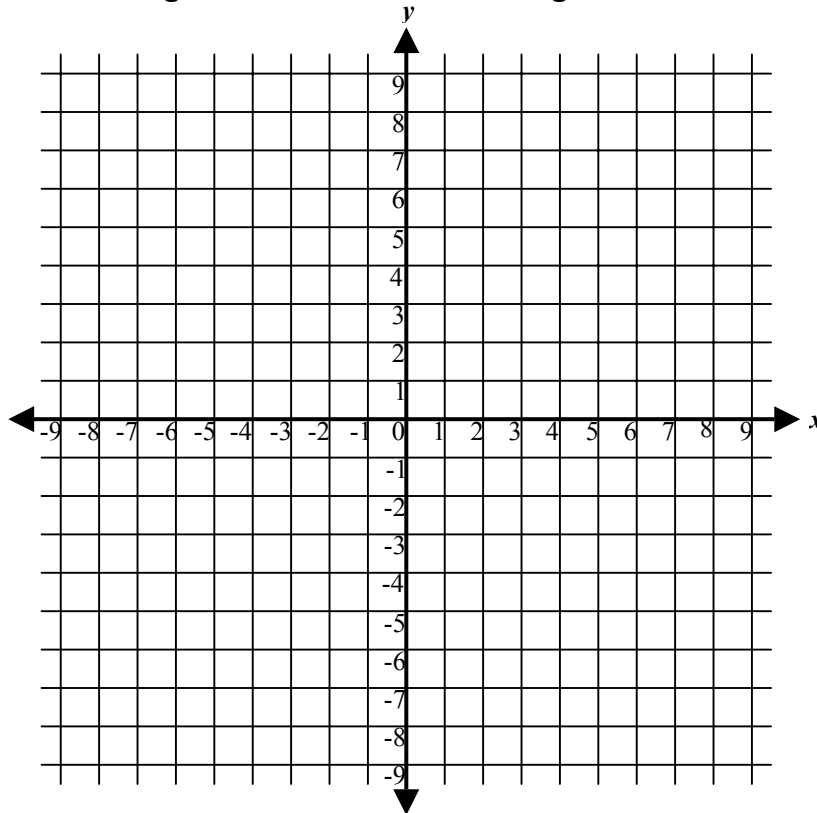
Integrated Response

68. A rectangle is formed by the following coordinates:

A (-3, 2) B (3, 2) C (3, 0) D (x, y)

(MG 2.2B)

a. Graph the rectangle and record the missing coordinates for D. _____



(MG 2.2C)

b. Dilate the rectangle on the grid by a scale factor of 2. What are the new coordinates?

A₁ _____, B₁ _____, C₁ _____, D₁ _____

(MG 2.1E)

c. Are the two figures similar? Justify your answer using proportional reasoning.