

**FIND THE ERROR:**

# Distance Between Two Points



In each problem below, a student tried to find the distance between two points using the Pythagorean theorem but made an error. Circle the error in each student's work, explain what the error is, and show how to correctly find the distance between the two points using the Pythagorean theorem. Round your answer to the nearest hundredth.

## Delilah

Circle the error:

$$|1 - 4| = |-3| = 3$$

$$|5 - 2| = |3| = 3$$

$$3^2 + 3^2 = c^2$$

$$6 + 6 = c^2$$

$$12 = c^2$$

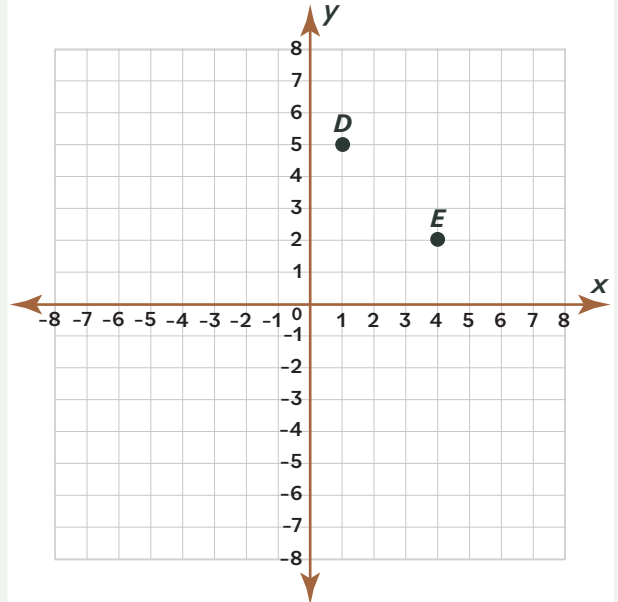
$$\sqrt{12} = c$$

$$3.464 \approx c$$

Distance  $\approx$  3.46 units

Show the correct work:

Distance  $\approx$  \_\_\_\_\_



What error did Delilah make? \_\_\_\_\_

## Tucker

Circle the error:

$$|-1 - 3| = |-2| = 2$$

$$|5 - (-2)| = |7| = 7$$

$$2^2 + 7^2 = c^2$$

$$4 + 49 = c^2$$

$$53 = c^2$$

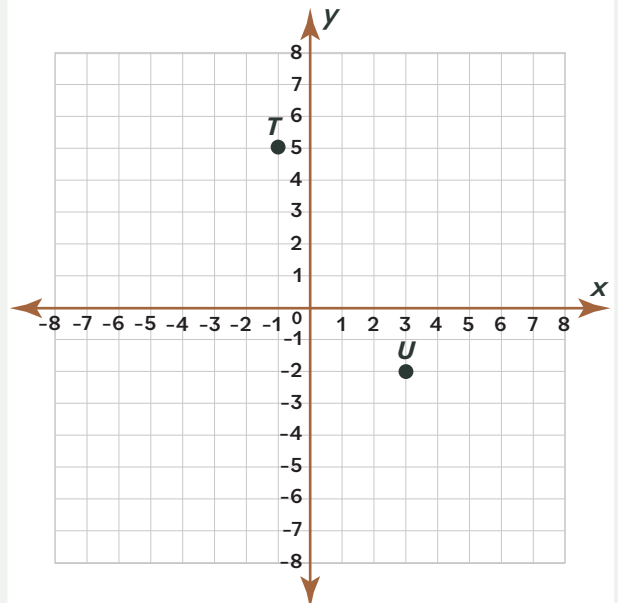
$$\sqrt{53} = c$$

$$7.280 \approx c$$

Distance  $\approx$  7.28 units

Show the correct work:

Distance  $\approx$  \_\_\_\_\_



What error did Tucker make? \_\_\_\_\_

**FIND THE ERROR:**

# Distance Between Two Points



Keep going! Circle the error in each student's work, explain what the error is, and show how to correctly find the distance between the two points using the Pythagorean theorem. Round your answer to the nearest hundredth.

## Graham

Circle the error:

$$|4 - 1| = |3| = 3$$

$$|2 - 4| = |-2| = 2$$

$$3^2 + 2^2 = c^2$$

$$9 + 4 = c^2$$

$$13 = c^2$$

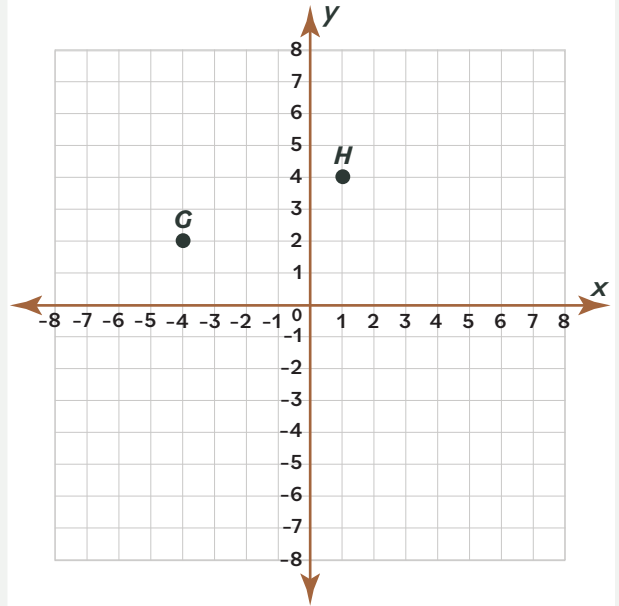
$$\sqrt{13} = c$$

$$3.605 \approx c$$

Distance  $\approx$  3.61 units

Show the correct work:

Distance  $\approx$  \_\_\_\_\_



What error did Graham make? \_\_\_\_\_

## Kylie

Circle the error:

$$|2 - 5| = |-3| = 3$$

$$|-5 - 1| = |-6| = 6$$

$$a^2 + 3^2 = 6^2$$

$$a^2 + 9 = 36$$

$$a^2 = 27$$

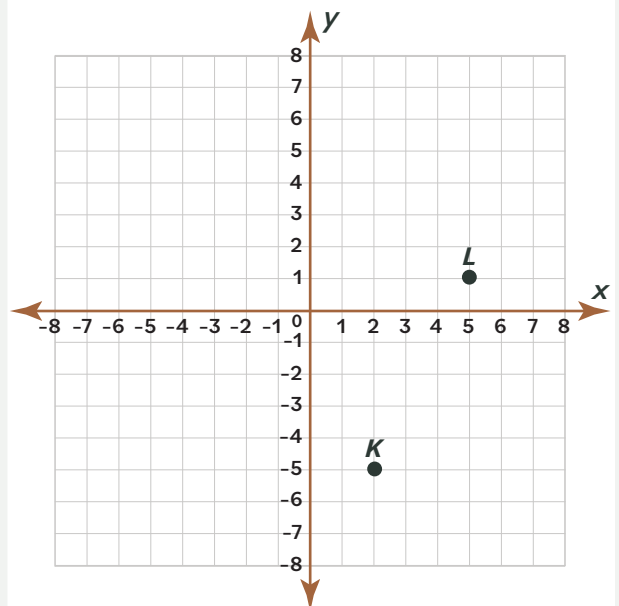
$$a = \sqrt{27}$$

$$a \approx 5.196$$

Distance  $\approx$  5.20 units

Show the correct work:

Distance  $\approx$  \_\_\_\_\_



What error did Kylie make? \_\_\_\_\_