

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:

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

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

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

$$6 + 6 = c^2$$

$$12 = c^2$$

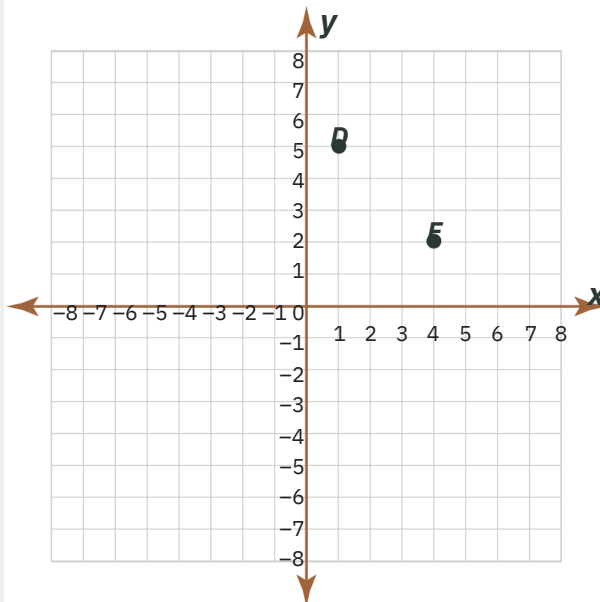
$$\sqrt{12} = c$$

≈

$$\text{Distance} \approx 3.464 \approx 3.46 \text{ units}$$

Show the correct work:

Distance ≈ _____



What error did Delilah make? _____

Tucker

Circle the error:

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

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

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

$$4 + 49 = c^2$$

$$53 = c^2$$

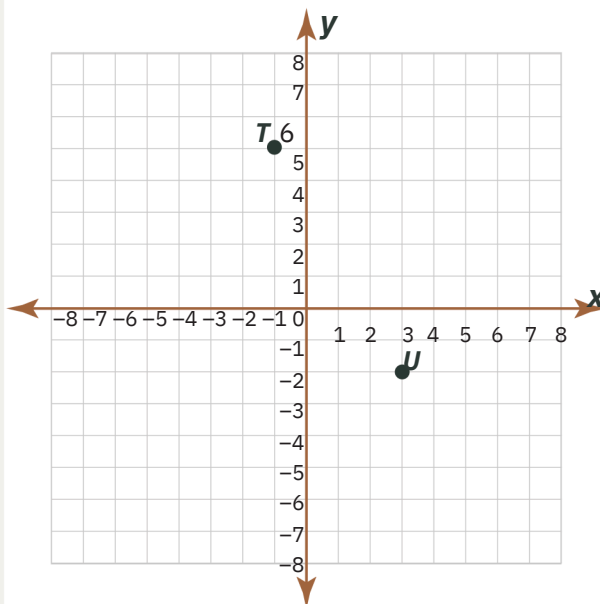
$$\sqrt{53} = c$$

≈ c

$$\text{Distance} \approx 7.28 \text{ units}$$

Show the correct work:

Distance ≈ _____



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:

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

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

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

$$9 + 4 = c^2$$

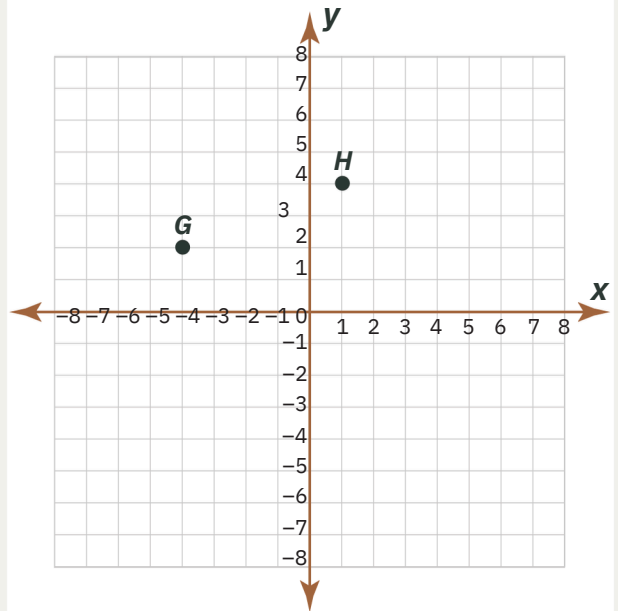
$$13 = c^2$$

$$\sqrt{13} = c$$

$$3.605 \approx c$$

Distance \approx 3.61 units

Show the correct work:

Distance \approx _____

What error did Graham make? _____

Kylie

Circle the error:

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

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

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

$$a^2 + 9 = 36$$

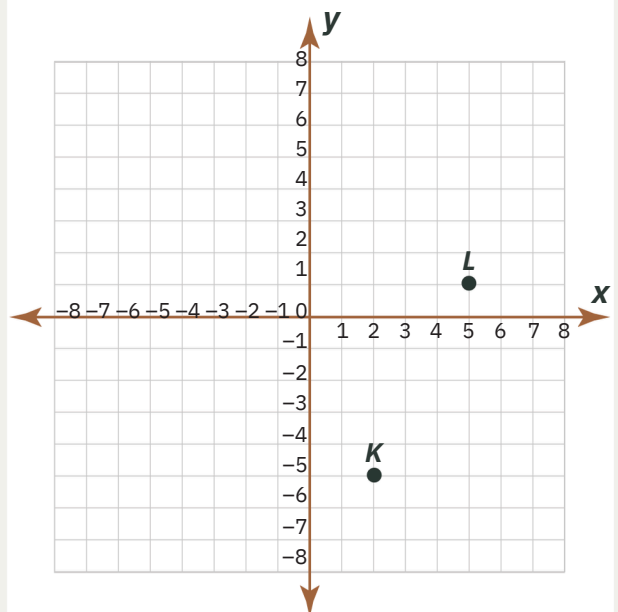
$$a^2 = 27$$

$$a = \sqrt{27}$$

$$a \approx 5.196$$

Distance \approx 5.20 units

Show the correct work:

Distance \approx _____

What error did Kylie make? _____
