

Push Tasks



Find the distance, including the diagonal of a shape.

1. Find the distance between $(-6, -4)$ and $(9, 16)$.

2. A square has vertices $(1, 1)$, $(7, 1)$, $(7, 7)$, $(1, 7)$. Find the diagonal length.

3. A rectangle has corners $(-2, -1)$, $(6, -1)$, $(6, 14)$, $(-2, 14)$. Find the diagonal length.

4. Point $A = (2, 3)$. Find a point B so that $AB = 13$ and both coordinates of B are integers.

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Construct an integer-coordinate point at a given distance from another point.

5. For $A = (-4, 5)$, give an integer-coordinate point B with $AB = 17$.

6. The distance from $(-3, 2)$ to $(x, 14)$ is 13. Find both values of x .

7. A segment is 15 units long with horizontal change 9. Find both possible vertical changes.

8. A segment is 26 units long with vertical change 24. Find both possible horizontal changes.

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Reason about and verify distance results.

9. For $(-2, -3)$ and $(3, 9)$, explain why $5^2 + 12^2 = 13^2$ gives the distance.

10. A student claims $(1, 1)$ and $(6, 13)$ are 14 units apart. Test the claim.

11. Give two points an irrational distance apart. Show the exact distance.

12. Create two points with integer coordinates that are 25 units apart.