

Distance between two points using Pythagoras

Treat horizontal and vertical coordinate changes as the legs of a right triangle.



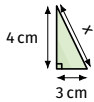
Name _____

Date _____

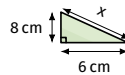
Diagram first

Use the right-angle mark to identify the hypotenuse. Show the equation, substitution, and conclusion with units where needed.

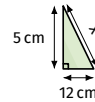
1. A(1, 2) to B(4, 6): find d .



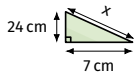
2. C(-2, 1) to D(4, 9): find d .



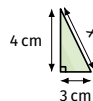
3. E(5, -1) to F(-7, 4): find d .



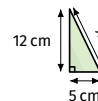
4. G(-3, -4) to H(4, 20): find d .



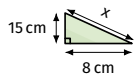
5. Horizontal change 3, vertical change 4: find d .



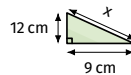
6. Horizontal change 5, vertical change 12: find d .



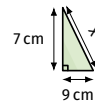
7. From (0, 0) to (8, 15): find d .



8. From (1, 2) to (10, 14): find d .



9. From (0, 0) to (9, 7): find d to 1 d.p.



Distance between two points using Pythagoras (continued)

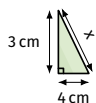


Apply the method to find distances between different pairs of points.

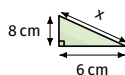
Name _____

Date _____

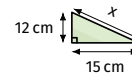
10. From $(2, 3)$ to $(6, 6)$: find d .



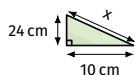
11. From $(-1, 1)$ to $(5, 9)$: find d .



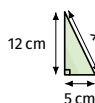
12. From $(-3, -2)$ to $(12, 10)$: find d .



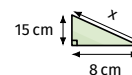
13. Horizontal change 10, vertical change 24: find d .



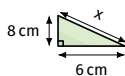
14. The distance is 13. Horizontal change is 5. Find vertical change.



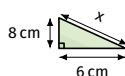
15. The distance is 17. Horizontal change is 8. Find vertical change.



16. Signed changes: -6 and -8 . Why is distance positive?



17. From $(1, 1)$ to $(7, 9)$: find d .



18. From $(5, -2)$ to $(20, 18)$: find d .

