

Grade 8 - Distance on the Coordinate Plane - Worksheet

Common Core 8.G.B.8 · maths-pdf.fr/en/

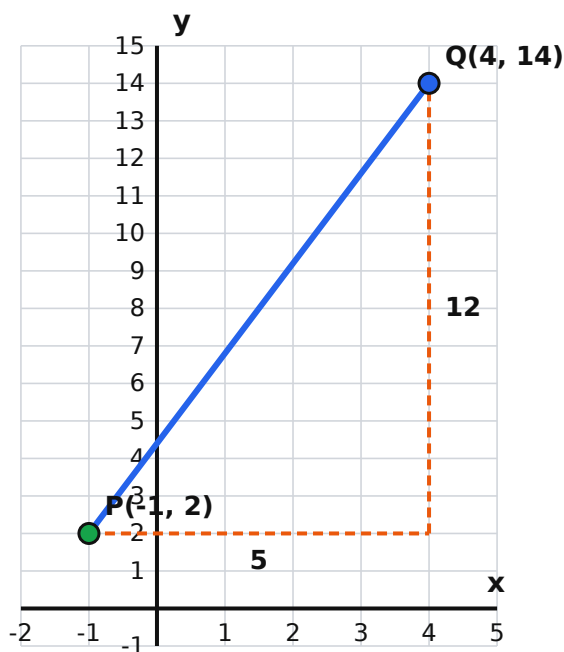
Name: _____ Class: _____ Date: ____/____/____

These 20 problems practice the distance formula on the coordinate plane, perimeters of figures and map problems (Common Core 8.G.B.8). Each problem has its own space for work, so print the page and write directly on it.

The problems start with direct skill checks and grow harder as you go. Later items find perimeters, compare distances and solve map problems. Use the answer key afterwards to check every step.

Grade 8 · Common Core State Standards: **8.G.B.8**

Exercise 1 - Distance with a triangle



Find the length of PQ.

Find the length of segment PQ with $P(-1, 2)$ and $Q(4, 14)$.

Exercise 2 - From the origin

Find the distance from the origin to $(5,12)$.

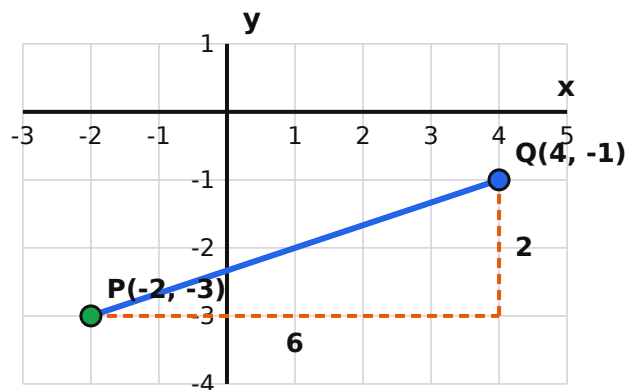
Exercise 3 - Negative coordinates

Find the distance between $(-3,1)$ and $(5,7)$.

Exercise 4 - Larger numbers

Find the distance between $(2,-4)$ and $(7,8)$.

Exercise 5 - Not a whole number



Find the length of the segment.

Find the distance between $P(-2,-3)$ and $Q(4,-1)$. Round to the nearest tenth.

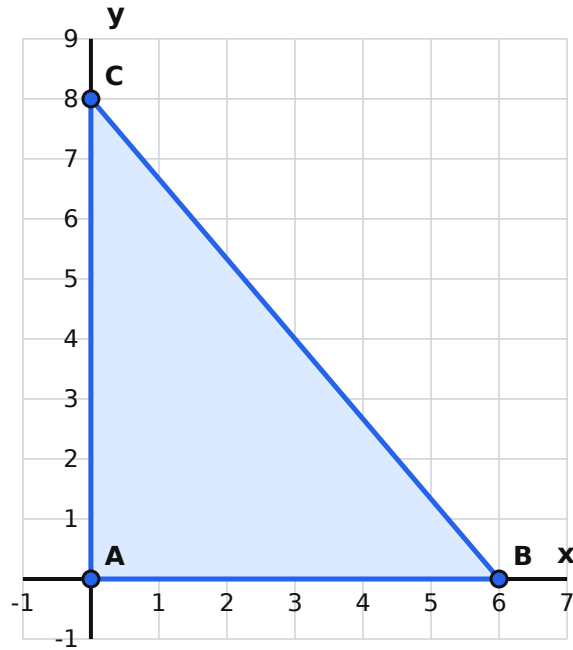
Exercise 6 - Horizontal segment

Find the distance between $(-4,3)$ and $(6,3)$.

Exercise 7 - Vertical segment

Find the distance between $(2,-5)$ and $(2,4)$.

Exercise 8 - Triangle perimeter



Triangle ABC.

Find the perimeter of triangle $A(0,0)$, $B(6,0)$, $C(0,8)$.

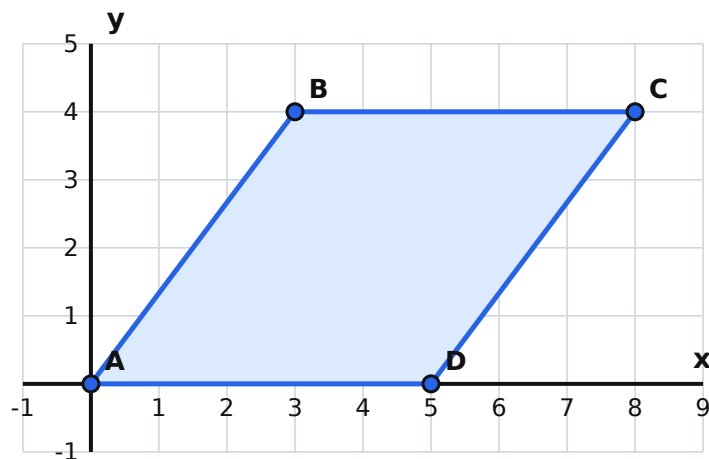
Exercise 9 - Right triangle test

Is the triangle with vertices $(1,1)$, $(4,1)$ and $(1,5)$ a right triangle? Explain.

Exercise 10 - Closer point

Which point is closer to the origin: $(3,5)$ or $(4,4)$?

Exercise 11 - Rhombus perimeter



Quadrilateral ABCD.

Find the perimeter of the quadrilateral with vertices $(0,0)$, $(3,4)$, $(8,4)$, $(5,0)$.

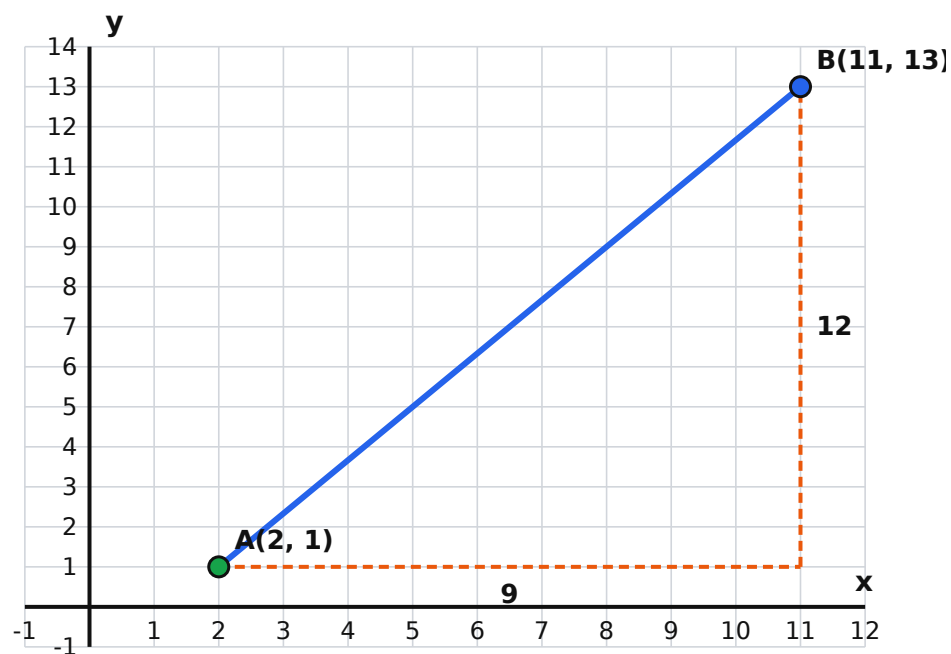
Exercise 12 - Find the missing coordinate

The distance from the origin to $(6,y)$ is 10. Find the possible values of y .

Exercise 13 - Rectangle diagonal

A rectangle has opposite corners at $(-1,-1)$ and $(5,7)$ and sides parallel to the axes. Find the length of a diagonal.

Exercise 14 - Drone flight



A drone flies from A to B (miles).

A drone flies from $A(2,1)$ to $B(11,13)$ on a map where each unit is 1 mile. How far does it fly?

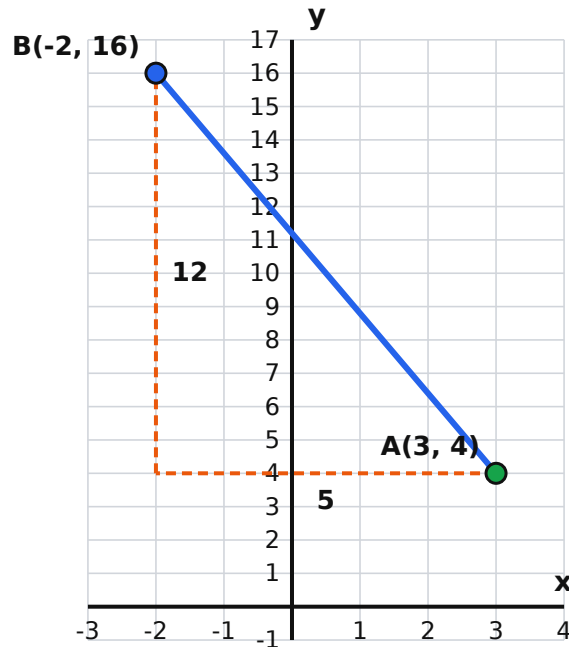
Exercise 15 - Two cities

A road map in miles places Pinewood at $(-9,-4)$ and Riverton at $(6,4)$. What is the straight-line distance between the towns?

Exercise 16 - Walk to the library

Sofia lives at $(0,0)$ on a map of city blocks. The library is at $(8,15)$. How many blocks is the straight-line distance?

Exercise 17 - Robot path



A robot moves from A to B.

A robot moves from $(3,4)$ to $(-2,16)$ on a grid where each unit is 1 foot. How far does it travel in a straight line?

Exercise 18 - Compare routes

A hiker goes from $(0,0)$ to $(9,0)$ and then to $(9,12)$. How much shorter is the direct route from $(0,0)$ to $(9,12)$?

Exercise 19 - Zip line

At a summer camp, a zip line runs from the top of a platform at $(0,12)$ to the ground at $(16,0)$, with each unit 1 foot. How long is the cable?

Exercise 20 - Explain the formula

Explain how the distance formula is related to the Pythagorean theorem.