What type of triangle?

Teacher notes

Why use this resource?

This resource can be used with a dual purpose. It can be used to give the opportunity for plenty of practice at finding the distance between two points, with the emphasis being on thinking about types of triangle (isosceles, right-angled, etc.). It requires students to think about using the converse of Pythagoras to check whether the triangles are right-angled as well as thinking carefully about the definitions we use to classify shapes. It could also be used to discuss appropriate methods, and whether thinking creatively about a problem can help us solve it more efficiently, rather than just substituting numbers into a formula.

Possible approaches

One possible approach might be to follow on from work on finding the distance between two points with this resource. Do they use Pythagoras every time? Or do they combine it with their other knowledge? Showing students the **Alternative solutions** to one of the questions could initiate discussions about the perceived benefits of different approaches. It might also be interesting to see what approach students took if they hadn't recently been studying Pythagoras.

Possible extension

If students only used Pythagoras to solve the questions, then they could be challenged to solve them again in a different way. (The **Alternative solutions** will be useful here.)

You can watch video of students tackling this task here.