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| **Topic/Skill**  | **Definition/Tips** | **Example****Topic: Pythagoras’ Theorem**  |
| 1. Pythagoras’ Theorem | For any **right angled triangle**:$$a^{2}+b^{2}=c^{2}$$Used to find **missing lengths**.a and b are the shorter sides, c is the **hypotenuse** (**longest side**). |  |
| 2. 3D Pythagoras’ Theorem | Find missing lengths by **identifying right angled triangles**.You will often have to find a missing length you are not asked for before finding the missing length you are asked for. | Can a pencil that is 20cm long fit in a pencil tin with dimensions 12cm, 13cm and 9cm? The pencil tin is in the shape of a cuboid.Hypotenuse of the base = $\sqrt{12^{2}+13^{2}}=17.7$Diagonal of cuboid = $\sqrt{17.7^{2}+9^{2}}=19.8cm$No, the pencil cannot fit. |

**Knowledge Organiser**