Unit 108: Wood occupations

# Worksheet 24: Pythagoras (tutor)

1. Try to list at least six applications for Pythagoras’ theory and how it would be used.

|  |  |
| --- | --- |
| **Application:** | **How would you use it?** |
| Squaring up partition sole plates | Using a 3/4/5 calculation at the appropriate length for the wall i.e. 1.5m/2m/2.5m |
| Squaring up window frames | Using a pinch rod to check the corner-to-corner measurement (working out diagonal) |
| Working out the length of a pair of stair strings | Using A2+B2=C2 to find the length of the hypotenuse. |
| Working out the length of rafters and roofing components | Using SohCahToa and/ or speed squares to ascertain the actual length of rafters. |
| Check openings are square | Prior to making frames or staircases to ensure the finished product fits |
| Making a pitch board for a stair tread | Bespoke going and rise calculated using A2+B2=C2 |

1. Find and fill in the missing side length:

1500mm

900mm

1200mm

1. Find and fill in the missing side length:

1700mm

910mm

1949mm

1.7 X 1.7 = 2.89 0.91x0.91= 0.8281 2.89-0.91= 3.8 √3.8 = 1.949m

1. If the angle of A is 68º What is the angle of C?

A

B C

C=22º

1. What is the area of the floorspace shown?

3.78m

1.62m

Area = 6.1236m

1. What is the area of the floorspace shown?

3235mm

1180mm

Missing side = 3012

Area= 1.778m²