Can Do: Trigonometry

In the examples below, you are asked to demonstrate that you can do something, by doing it.

In each case, you get to pick the examples that you think will show that you can do what has been asked.

1. I can understand and use the trigonometric ratios (sine, cosine, tangent) in right angled triangles:

\[
\sin 45^\circ = \frac{10}{\sqrt{2}} \\
\cos 45^\circ = \frac{\sqrt{2}}{2} \\
\tan 45^\circ = 1
\]

2. I can use trigonometry to solve practical problems involving right-angled triangles:

A man is looking up at a tree which is 2m high. He is standing 5m from the base. What is the angle of elevation?

\[
\tan x = \frac{2}{5} \\
x = 21^\circ 48' \ (\text{nearest minute})
\]

Grade Commentary

Stacey demonstrates knowledge and understanding of trigonometry in relation to right-angled triangles. Examples are presented that indicate competence in the processes and skills involved in using trigonometric ratios to calculate sides and angles in right-angled triangles accurately and efficiently. Understanding of the practical applications of trigonometry, and some use of appropriate mathematical terminology, is evident in the examples presented. Further examples, in order to cover the use of each of the trigonometric ratios, the use of degrees and minutes for angle measurements only, and clearer expression of practical problems involving bearings would enhance the response.

Stacey’s response demonstrates characteristics of work typically produced by a student performing at a grade B standard.