Test-A-Beam Graphing Worksheet Sample Key

REFLECTION QUESTIONS

1.) The formula:

$$I = \frac{w \times h^3}{12}$$

Is used for what kind of cross section? (Pick one.)

a) Square   b) Circular   c) Triangular

2.) What defines a beam from any other basic structure?

A) A beam must be strong, sturdy, and made of a hard material

b) A beam must be square in shape along its cross-section

c) The length of the beam must be several times longer than any of its cross-sectional dimensions.

3.) As the area moment of inertia of a beam increases, the amount of deflection that the beam will allow:

a) Decreases   b) Increases   c) Stays the same/Does not change

4.) What kind of cross-section are any beams allowed to have?

a) Square or rectangular cross-section

b) Any rounded cross-section

c) I-beam cross section

d) All of the above and more, depending on design