1.)

An engineer determined that a bridge he is designing has a maximum stability when its length, , width, , and height, , are defined by the equations above. If he wants to build a bridge with a height of 9 meters, what should be the length of the bridge, in meters?

A) 48

B) 24

C) 12

D) 6

2.)

Which of the following is a correct value for in the equation above?

A) 3

B) 2

C) -2

D) -4

3.) The formula is used to calculate the distance an object travels over a period of time, , at a constant rate, . Based on this formula, what is the rate, , in terms of and ?

A)

B)

C)

D)

4.) The sum of four consecutive integers is 190. What is the third integer?

A) 45

B) 46

C) 47

D) 48

5.) What value of satisfies the equation below?

6.)

In the equation above, what is the value of ?

A)

B)

C)

D)