

Compression Ratio Lesson 1 Quiz

Name

Key

Solve the following using the compression ratio formula. Show work.

1. A 304.4 CID engine has a piston displacement of 623 cc and a chamber volume of 45cc.
What is the compression ratio?

$$CR = \frac{PD + CV}{CV} = \frac{623 + 45}{45} = \frac{668}{45} = 14.8$$

14.8 to 1 (Would need race fuel)

2. A 5.0 L CID engine has a piston displacement of 625.75 cc and a chamber volume of 78 cc.
What is the compression ratio?

$$CR = \frac{625.75 + 78}{78} = \frac{703.75}{78} = 9.0$$

9.0 to 1

3. A 364 CID engine has a piston displacement of 652.5 cc and a chamber volume of 79.2 cc.
What is the compression ratio?

$$CR = \frac{652.5 + 79.2}{79.2} = \frac{731.7}{79.2} = 9.2$$

9.2 to 1

4. Find the value of y in the equation $y = \frac{8x-3}{2z}$ if x = 11 and z = 5.

$$y = \frac{8(11) - 3}{2(5)} = \frac{88 - 3}{10} = \frac{85}{10} = 8.5$$

5. Find the value of c, when a = 13 and b = 4 in the equation $c = \frac{2a-b}{b}$.

$$c = \frac{2(13) - 4}{4} = \frac{26 - 4}{4} = \frac{22}{4} = 5.5$$

