

Correct. Divide each term in the polynomial by the monomial.

$$\frac{55b^8}{10b^3} - \frac{40b^5}{10b^3} - \frac{35b}{10b^3} = \frac{11b^5}{2} - 4b^2 - \frac{7}{2b^2}$$

So 2 is the correct answer.