

8. Correct. The answer is true. Fixed cost is the constant = 100, since this number is not related to output. Variable cost is related to output and, hence, contains all the expressions with Q in them. Variable costs at 10 are equal to $500(10) - (10)^2 = 4900$. Average total cost is $TC/Q = (100 + 500Q - Q^2)/Q = 100/Q + 500 - Q = 500$. Marginal cost = $500 - 2(10) = 480$.