

Quiz 1

This quiz is graded out of 10 marks. No books, calculators, notes or cell phones are allowed. You must show all your work, the correct answer is worth 1 mark the remaining marks are given for the work. If you need more space for your answer use the back of the page.

Question 1. pg.3#30 (5 marks) Simplify the following:

$$\begin{aligned} \frac{(-2xy^{-3})^{-3}}{(xy^{-1})^{-1}} &= \frac{(xy^{-1})}{(-2xy^{-3})^3} \\ &= \frac{xy^{-1}}{(-2)^3 x^3 y^{-9}} \\ &= \frac{xy^{-1}y^9}{-8x^3} = \frac{xy^8}{-8x^3} = \frac{-y^8}{8x^2} \end{aligned}$$

Question 2. pg.8#4j (5 marks) Multiply and simplify:

$$\begin{aligned} 3x^3(x-5)(2x+3) &= 3x^3(2x^2+3x-10x-15) \\ &= 3x^3(2x^2-7x-15) \\ &= 6x^5 - 21x^4 - 45x^3 \end{aligned}$$