Sample Quiz

1. Simplify.

a) $x^{10} \cdot x^7$

b) $x^{10} \div x^7$

c) $(x^{10})^7$

d) $(3m^2n^3)(-5m^4)^2$

a) x^{17} ✓

b) x^3 ✓

c) x^{70} ✓

$3m^2n^3(-5)^2(m^4)^2$ ✓

$= 3m^2n^3(25)m^8$ ✓

$= 75m^{10}n^3$ ✓✓

2. (Simplify first), then evaluate.

$$\frac{10x^2y^{50}}{5x^1y^{46}} \, , \quad x = 9 \, , \, y = -1$$

$$= 2x^{2-1}y^{50-46}$$

$$= 2xy^4 \quad ✓✓✓$$

$$= 2(9)(-1)^4 \quad ✓$$

$$= 2(9)(1)$$

$$= 18 \quad ✓$$