

Actividades 4ta. Unidad - Lección 4

15/10/21

$$1. \frac{2y-14}{y^2-2y-35} \div \frac{5y-30}{y^2-25} =$$

$$\frac{2(y-7)}{y^2-2y-35} \div \frac{5y-30}{y^2-25} = \frac{2(y-7)}{(y-7)(y+5)} \div \frac{5(y-6)}{y^2-25}$$

$$\frac{2}{y+5} \div \frac{5(y-6)}{(y+5)(y-5)} = \frac{2}{y+5} \cdot \frac{(y+5)(y-5)}{5(y-6)} = \frac{2}{y+5} \cdot \frac{(y-5)}{5}$$

$$\frac{4}{5} = \frac{1}{3}$$

$$2. \frac{9x-27}{15x+30} \div \frac{6x^2-18}{14-7x} = \frac{9(x-3)}{15x+30} \div \frac{6x^2-18}{14-7x} =$$

$$\frac{9(x-3)}{5(x+2)} \div \frac{6x^2-18}{14-7x} = \frac{3(x-3)}{5(x+2)} \div \frac{6x^2-18}{14-7x} = \frac{3(x-3)}{5(x+2)} \cdot \frac{(14-7x)}{6x^2-18}$$

$$\frac{3(2-x)}{5(x+2)} = \frac{x-3}{5(x+2)} \quad \frac{x-7(2-x)}{2(x-3)} =$$

$$\frac{x-3}{5(x+2)} \cdot \frac{x \cdot 7(2-x)}{2(x^2-3)} = \frac{(x-3)}{10(x+2)} \cdot \frac{7(2-x)}{(x^2-3)}$$

$$\frac{(7x - x^3)(2-x)}{10x + 10x^2)(x^2-3)} = \frac{(7x-21)(2-x)}{(10x+20)(x^2-3)}$$

$$3. \quad \frac{25x^3y^4}{36m^4n} \div \frac{10x^2y^3}{18m^2n} = \frac{25x^3y^4}{36m^4n} \times \frac{18m^2n}{10x^2y^3} =$$

$$\frac{25x^3y^4}{36m^4n} \times \frac{9m^2n}{5x^2y^3} = \frac{5xy}{4m^2}$$

$$4. \quad \frac{6xy}{5y^2} \div \frac{3x}{10y} = 6xy \times \frac{10y}{3x} \times \frac{6x}{5y} \times \frac{10y}{3x}$$

$$2 \times 2 = 4$$

$$5. \quad \frac{3m}{8n^2} \div \frac{9m}{16n^2} = \frac{3m}{8n^2} \times \frac{16n^2}{9m} = \frac{2}{3}$$