

U6: LG4 Answers

33.

$$\frac{\frac{2x-9}{6}}{\frac{2x-3}{9}} = \frac{2x-9}{6} \div \frac{2x-3}{9} = \frac{2x-9}{6} \cdot \frac{9}{2x-3} = \frac{2x-9}{\cancel{2}} \cdot \frac{\cancel{9}^3}{2x-3} = \frac{3(2x-9)}{2(2x-3)}$$

34.

$$\frac{\frac{a-5}{12}}{\frac{a+2}{15}} = \frac{a-5}{12} \div \frac{a+2}{15} = \frac{a-5}{12} \cdot \frac{15}{a+2} = \frac{a-5}{\cancel{4}^2} \cdot \frac{\cancel{15}^5}{a+2} = \frac{5(a-5)}{4(a+2)}$$

35.

$$\frac{\frac{2x-4y}{xy^2}}{\frac{3x-6y}{x^3y}} = \frac{2x-4y}{xy^2} \div \frac{3x-6y}{x^3y} = \frac{2x-4y}{xy^2} \cdot \frac{x^3y}{3x-6y} = \frac{\cancel{2}(x-2y)}{\cancel{x}y^2} \cdot \frac{\cancel{x}^2y}{3\cancel{(x-2y)}} = \frac{2x^2}{3y}$$

36.

$$\frac{\frac{ab+b^2}{4ab^5}}{\frac{a+b}{6a^2b^4}} = \frac{ab+b^2}{4ab^5} \div \frac{a+b}{6a^2b^4} = \frac{ab+b^2}{4ab^5} \cdot \frac{6a^2b^4}{a+b} = \frac{\cancel{6}(a+b)}{\cancel{4}^2 \cancel{ab}^4} \cdot \frac{\cancel{6}^3 a}{\cancel{a+b}} = \frac{3a}{2}$$