Ch. 6 Rational Expression Arithmetic /24

1. Simplify each expression completely. Show work for full marks. 2 marks each.

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| a) $\frac{6a^{5}b}{2a^{4}b^{5}}÷\frac{a^{2}b^{3}}{2a^{3}b^{2}}$ | b) $\frac{3}{2x+6}+\frac{5}{8x+4}$ |
| c) $\frac{7}{q-2}×\frac{2q-4}{q+4}$ | d) $\frac{6a}{a-2}-\frac{12}{a-2}$ |
| e) $\frac{3}{5x^{3}y^{4}}+\frac{5}{3x^{5}y^{3}}$ | f) $\frac{x^{2}+4x-5}{4x^{2}-9}×\frac{2x^{2}-5x-12}{x^{2}+x-20}$ |

2. Simplify each expression completely. Show work for full marks. 3 marks each.

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| a) $\frac{x-1}{2x^{2}+3x+1}-\frac{x+1}{2x^{2}-x-1}$ | b) $\frac{t+5}{t+6}+\frac{1}{t+4}÷\frac{t+6}{t^{2}-t-20}$ |
| c) $\frac{\frac{x}{y^{3}}}{\frac{x^{2}}{y}}$ | d) $\frac{3-\frac{4}{x-1}}{5-\frac{3}{1-x}}$ |