

11-4

$$a) \frac{m^2 \cdot m}{2m^2} = \frac{m}{2}$$

$$b) \frac{m^2 + m}{2m^2} = \frac{m(m+1)}{2m^2} = \frac{m+1}{2m}$$

$$c) \frac{m^2 - m}{m^2 - m^2} = \frac{m(m-1)}{m^2(m-1)} = \frac{m}{m^2} = \frac{1}{m}$$

$$d) \frac{m^2 - 4}{m^2 - 2m} = \frac{(m-2)(m+2)}{m(m-2)} = \frac{m+2}{m}$$

$$e) \frac{3m-9}{15-5m} = \frac{3(m-3)}{5(3-m)} = -\frac{3(m-3)}{5(m-3)} = -\frac{3}{5}$$

11-5

$$a) \frac{16}{5x} + \frac{4}{5x} = \frac{16+4}{5x} = \frac{20}{5x} = \frac{4}{x}$$

$$b) \frac{5a+2}{a^3} - \frac{3a+2}{a^3} = \frac{5a+2-3a-2}{a^3} = \frac{2a}{a^3}$$

$$c) -\frac{4-m}{2m^2} + \frac{6-m}{2m^2} = -\frac{4-m+6-m}{2m^2} = -\frac{10}{2m^2} = -\frac{5}{m^2}$$

$$d) \frac{4x-5}{6x-3} + \frac{7x-9}{6x-3} - \frac{9x-13}{6x-3} = \frac{4x-5+7x-9-9x+13}{6x-3} = \frac{2x-1}{6x-3} = \frac{2x-1}{3(2x-1)} = \frac{1}{3}$$

$$e) \frac{3a-5b}{a-b} + \frac{2a-4b}{b-a} = \frac{3a-5b}{a-b} - \frac{(-4b-2a)}{a-b} = \frac{3a-5b+4b+2a}{a-b} = \frac{-9b+5a}{a-b} = \frac{a-b}{a-b} = 1$$