

$$a) \frac{3}{4} + \frac{2}{5}$$

$$= \frac{15}{20} + \frac{8}{20}$$

$$b) \frac{1}{2} - \frac{7}{10}$$

$$= \frac{5}{10} - \frac{7}{10}$$

$$c) \frac{11}{12} + \frac{3}{8}$$

$$= \frac{22}{24} + \frac{9}{24}$$

$$\frac{11}{12} + \frac{3}{8}$$

$$= \frac{11}{4(3)} + \frac{3}{4(2)}$$

$xy \neq 0$

$$\frac{xy^2}{2y-5x} =$$

$$= \frac{\cancel{3}xy^2}{\cancel{3}(2y-5x)}$$

$$= \frac{3xy^2}{6y-15x}$$

$$2.d) \frac{3xy}{6} - \frac{y^2}{5}$$

$x \neq 0$

$$= \frac{x^2}{3x+6}$$

$$1.d) \frac{x}{2} + \frac{x^2}{6}$$

$x \neq 0$

$$= \frac{28x^3}{35x+14}$$

$$= \frac{28x^3}{5(7x+1(4))}$$

$$1.c) \frac{4x^2}{5} + \frac{7x^3}{1}$$

HLW p. 128
 1.c, d
 2.d
 3
 10
 Take one step more i.e. factor numerator and denominator at end

$$y \neq -1, 2$$

$$\frac{(y+1)(y-2)}{y-1} =$$

$$\frac{(y+1)(y-2)}{(y+1)(y-2)} =$$

$$= 2y-4-3y-3$$

$$= \frac{(y+1)(y-2)}{2(y-2)-3(y+1)}$$

$$= \frac{y+1}{2} - \frac{y-2}{3}$$

no restrictions

$$10. a) \frac{3m+2}{5} + \frac{4m+5}{5}$$

$$= \frac{5(3m+2) + 2(4m+5)}{10}$$

$$= \frac{15m+10+8m+10}{10}$$

$$= \frac{23m+20}{10}$$

$$x \neq -4, -3, 2$$

$$\frac{2x^2+13x+15}{(x+3)(x-2)(x+4)} =$$

$$\frac{2x^2+8x+5x+15}{(x+3)(x-2)(x+4)} =$$

$$\frac{2x(x+4)+5(x+3)}{(x+3)(x-2)(x+4)} =$$

$$\frac{2x}{2x} \frac{(x+3)(x-2)}{(x+3)(x-2)} + \frac{5}{5} \frac{(x+4)(x-2)}{(x+4)(x-2)}$$

$$d) \frac{2x}{5} \frac{x^2+x-6}{x^2+2x-8} + \frac{5}{5}$$

$$b) \frac{x^2}{5} - \frac{4x^3}{3}$$

$$= \frac{20x-3}{4x^3}$$

$$x \neq 0$$

$$3. a) \frac{x-3}{3} - \frac{5x-1}{7}$$

$$= \frac{3(5x-1)-7(x-3)}{3(5x-1)-7(x-3)}$$

$$= \frac{15x-3-7x+21}{8x+18}$$

$$= \frac{(x-3)(5x-1)}{8x+18}$$

$$x \neq \frac{1}{5}, 3$$

$$b) \frac{x+3}{2} + \frac{x^2-9}{7}$$

$$= \frac{2(x+3)+7(x^2-9)}{2(x+3)+7(x^2-9)}$$

$$= \frac{2x+18}{(x+3)(x-3)}$$

$$= \frac{(x+3)(x-3)}{2x+18}$$

$$x \neq \pm 3$$

$$c) \frac{x^2-2x+1}{9} - \frac{x^2-4x+3}{5}$$

$$= \frac{(x-1)^2}{9} - \frac{(x-3)(x-1)}{5}$$

$$= \frac{5(x-1)-9(x-3)}{5(x-1)-9(x-3)}$$

$$= \frac{5x-5-9x+27}{(x-3)(x-1)^2}$$

$$= \frac{-4x+22}{(x-3)(x-1)^2}$$

$$x \neq 1, 3$$