

2-7-3 Factoring

a) $5(3y-5)$ $14(z+4)$ $13(3u-1)$ $9(9p-2)$ $7(t+3)$

b) $8(1+t)$ $7(2-3w)$ $9(v-9)$ $2(x-5)$ $3(w+3)$

c) $-\frac{2}{3}(y+5)$ $\frac{4}{5}(y+2)$ $\frac{5}{12}(2-3r)$ $\frac{2}{25}(2y+3)$ $\frac{1}{3}(5r+2)$

d) $3(2x^2-3x+4)$ $7(2e^2+3e+8)$ $2(x^2-2x-4)$ $4(2a^2+a+1)$ $5(2b^2+b-5)$

e) $3(1+w+w^2)$ $-5(1+t+t^2)$ $-8(1-2e+3e^2)$ $12(1-2y^2+3y)$ $5(3r+3r^2-5)$

f) $a(x+2)$ $x(b-7)$ $3s(1-t)$ $f(4e+3)$ $w(2-x)$

g) $4x(x-3)$ $7y(2y+3)$ $9z(9+2z)$ $10q(q-2)$ $8a(1-a)$

h) $\left(\frac{2ax^2}{2a} + \frac{4ax}{2a} - \frac{8a}{2a}\right) = 2a(x^2+2x-4)$ $4x\left(\frac{12xy^2}{4x} + \frac{16xy}{4x} + \frac{24x}{4x}\right) = 4x(3y^2+4y+6)$

$a^2(x^2+x+1)$

$2a(ax-2)$

$e^2(e-5x)$

i) $3x^2y^2(x+3-4y)$

$5a^2b^2\left(\frac{25a^4b^2}{5a^2b^2} + \frac{45a^2b^3}{5a^2b^2} - \frac{15a^2b^5}{5a^2b^2}\right) = 5a^2b^2(5a^2+9b-3b^3)$

j) $a^{5b^4}\left(\frac{a^7b^5}{a^5b^4} - \frac{5a^8b^7}{a^6b^4} - \frac{a^5b^4}{a^5b^4}\right) = a^{5b^4}(a^2b-5ab^3-1)$

$ef^2\left(\frac{2e^4f^3}{ef^2} + \frac{4e^2f^2}{ef^2} - \frac{ef^3}{ef^2}\right) =$

$ef^2(2e^3f+4e-f)$

k) $\left(\frac{25a^4b^2}{25a^2b^2} + \frac{75a^2b^3}{25a^2b^2} - \frac{100a^2b^2}{25a^2b^2}\right) 25a^2b^2 = 25a^2b^2(a^2+3b-4)$

$7x^2y^4\left(\frac{21x^3y^6}{7x^2y^4} + \frac{14x^2y^5}{7x^2y^4} - \frac{28x^4y^4}{7x^2y^4}\right) = 7x^2y^4(3xy^2+2y-4x^2)$

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

$\frac{9}{8}\left(\frac{8}{3} \cdot \frac{15a^2}{8} - \frac{8}{3} \cdot \frac{21a}{8}\right) = \frac{3}{8}(5a^2-7a) =$

$\frac{3}{8}a(5a-7)$