

Name: _____



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1) Fully factorise the following expressions:

a) $4x + 8$

$4(x+2)$

f) $20y - 16$

$4(5y-4)$

k) $24k - 120m$

$12(2k-10m)$

b) $5k - 30$

$5(k-6)$

g) $24a + 12b$

$12(2a+b)$

l) $19a + 57p$

$19(a+3p)$

c) $25h + 15$

$5(5h+3)$

h) $45x + 15y$

$15(3x+y)$

m) $64a + 80b$

$16(4a+5b)$

d) $21a - 35$

$7(3a-5)$

i) $45x + 18$

$9(5x+2)$

n) $7a + 21b - 49c$

$7(a+3b-7c)$

e) $10 + 20x$

$10(1+2x)$

j) $72y - 132$

$12(6y-11)$

o) $15x + 5y - 30z$

$5(3x+y-6z)$

2) Fully factorise the following expressions:

a) $3x^2 + 9x$

$3x(x+3)$

f) $20x^2y + 16y$

$4y(5x^2+4)$

b) $4k^2 - 16k$

$4k(k-4)$

g) $24a^3b + 18a^2b$

$6a^2b(4a+3)$

c) $25x + 15xy$

$5x(5+3y)$

h) $15x^2 + 15x$

$5x(3x+3)$

d) $24a^2 + 6ab$

$6a(4a+b)$

i) $25x^2 - 5xy^2 + 10xy$

$5x(5x-y^2+2y)$

e) $36x^3 - 24x^2$

$12x^2(3x-2)$

j) $10a^2b + 20a - 40abc$

$10a(ab+2-4bc)$

3) Fully factorise the following expressions:

a) $24a^5b^2 + 18a^4bc^2$

$6a^4b(4ab+3c^2)$

k) $42v^3w^2x^3 + 14v^3wx^2$

$7v^3wx^2(6wx+2)$

b) $5p^5q^4r^2 - 25p^2q^2$

$5p^2q^2(p^3q^2r^2-5)$

l) $25w^4x^3y^5 + 32wx^4$

$wx^3(25w^3y^5+32x)$

c) $20a^2b^2c^3 + 50a^4b$

$10a^2b(2bc^3-5a^2)$

m) $4s^2t^3 + 18s^2t^4$

$2s^2t^3(2+9t)$

d) $24m^2n^3 - 28m^3np^4$

$4m^2n(6n^2-7mp^4)$

n) $105x^2y + 15x^2y^3$

$15x^2y(7+y^2)$

e) $15r^2s^2 + 21rs^4$

$3rs^2(5r+7s^2)$

o) $204r^3st^2 - 34rs^2t$

$17rst(12r^2t+2s)$

Exam question:

Fully factorise $28xy^2z^3 - 35x^3y^7z^3$

$7xy^2z^3(4 - 5x^2y^5)$

