

Factorising

Can you find the
the mistake?
1 2 3 4 5 6 7 8 9

Factorise fully.

$x^2 - x - 12$ <i>Solution: <u>$(x+4)(x-3)$</u></i>	$p^2 + 7p$ <i>Solution: <u>$(p+4)(p+3)$</u></i>
$d^2 - 16$ <i>Solution: <u>$(d-4)^2$</u></i>	$9t^4v^2 - 12t^2v$ <i>Solution: <u>$3(3t^4v^2 - 4t^2v)$</u></i>
$6x^2 - 10x - 4$ <i>Solution: <u>$(6x-4)(x+1)$</u></i>	$25y^4 - 4x^2$ <i>Solution: <u>1 is the only common factor - cannot be factorised</u></i>
$10hf + 30h^2f$ <i>Solution: <u>$10hf(3h)$</u></i>	$2m(m-5) + 8n(m-5)$ <i>Solution: <u>$2(m(m-5) + 4n(m-5))$</u> <u>$= 2(m^2 - 5m + 4nm - 20n)$</u></i>

Factorising

Factorise fully.

1 Factorise

a $x^2 + 4x + 3$

b $x^2 + 7x + 10$

c $y^2 - 3y + 2$

d $x^2 - 6x + 9$

e $y^2 - y - 2$

f $a^2 + 2a - 8$

g $x^2 - 1$

h $p^2 + 9p + 14$

i $x^2 - 2x - 15$

j $16 - 10m + m^2$

k $t^2 + 3t - 18$

l $y^2 - 13y + 40$

2 Factorise

a $2x^2 + 3x + 1$

b $2 + 7p + 3p^2$

c $2y^2 - 5y + 3$

d $2 - m - m^2$

e $3r^2 - 2r - 1$

f $5 - 19y - 4y^2$

g $4 - 13a + 3a^2$

h $5x^2 - 8x - 4$

i $4x^2 + 8x + 3$

j $9s^2 - 6s + 1$

k $4m^2 - 25$

l $2 - y - 6y^2$

3 Factorise fully

a $6x^2 - 9xy$

b $p^2 + 6p$

c $8x^2 + 4xy$

4 Factorise fully

a $2y^2 - 10y + 12$

b $x^3 + x^2 - 2x$

c $p^3 - 4p$

d $3m^3 + 21m^2 + 18m$

e $a^4 + 4a^2 + 3$

f $t^4 + 3t^2 - 10$

g $12 + 20x - 8x^2$

h $6r^2 - 9r - 42$

i $6x^3 - 26x^2 + 8x$

j $y^4 + 3y^3 - 18y^2$

k $m^4 - 1$

l $p^5 - 4p^3 + 4p$

