

Name: _____



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Factorise the following expressions into double brackets

a) $x^2 - 25$

$$(x + 5)(x - 5)$$

k) $49a^2 - 121b^2$

$$(7a + 11b)(7a - 11b)$$

b) $a^2 - 4$

$$(a + 2)(a - 2)$$

l) $64 - 4x^2$

$$(8 + 2x)(8 - 2x)$$

c) $g^2 - 49$

$$(g + 7)(g - 7)$$

m) $4x^2 - 36y^2$

$$(2x + 6y)(2x - 6y)$$

d) $d^2 - 81$

$$(d + 9)(d - 9)$$

n) $225w^2 - 196x^2$

$$(15w + 14x)(15w - 14x)$$

e) $f^2 - 100$

$$(f + 10)(f - 10)$$

o) $49c^2 - 169d^2$

$$(7x + 13d)(7x - 13d)$$

f) $16 - x^2$

$$(4 + x)(4 - x)$$

p) $a^2b^2 - c^2d^2$

$$(ab + cd)(ab - cd)$$

g) $64 - x^2$

$$(8 + x)(8 - x)$$

q) $f^2 - 49a^2$

$$(f + 7a)(f - 7a)$$

h) $144 - x^2$

$$(12 + x)(12 - x)$$

r) $16c^2 - g^2$

$$(4c + g)(4c - g)$$

i) $9x^2 - 36$

$$(3x + 6)(3x - 6)$$

s) $x^4 - y^4$

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

j) $16b^2 - 100$

$$(4b + 10)(4b - 10)$$

t) $144x^4 - 36x^6$

$$(12x^2 + 6x^3)(12x^2 - 6x^3)$$

Exam question:

160 and can be written as $169 - 9$

Use the difference of two squares to write 160 as product of two 2-digit integers

$$= (13 + 3)(13 - 3)$$

$$= (16)(10)$$

