## Factoring and Quadratics

Simple Ones Challenging Perfect Squares Difference Quadratics Squares





GameBoard

Full Screen

# Perfect Squares for 100.



# Factor $25x^2 - 60x + 36$

$$\left(5x+6\right)^2$$
$$\left(5x-6\right)^2$$

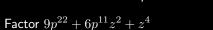
$$-6)^{2}$$

$$(6x-5)^2$$

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# Perfect Squares for 200.



$$(3p^2-z^{11})^2$$

$$(p^{11}-z^2)^2$$

$$(3p^2 + z^{11})^2$$

 $(3p^{11} + z^2)^2$ 

**EGRIS** 

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# Perfect Squares for 300.

# Factor $64p^2 + 144p + 81$

$$(9p-8)^2$$

$$(9p + 8)^2$$

$$(8p-9)^2$$

$$(8p+9)^2$$

### none of them

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# Perfect Squares for 400.





Factor  $16y^{16} - 56y^8 + 49$ 

 $(4y^4-7)^2$ 

 $(7y^8 - 4)^2$ 

1)

 $(4y^8-7)^2$ 

 $(4y^8+7)^2$ 

none of them

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# Difference Squares for 100.

# EGRS

# Factor $u^2 - 36$

$$(u+6)(u+6)$$

$$u(u-6)$$

$$(u+6)(u-6)$$

$$(u+6)u$$

none of them

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# Difference Squares for 200.

Factor 
$$4 - y^4$$

$$(2+y)(2-y)$$

$$(2+y)(2+y)$$

$$(4+y^2)(4-y^2)$$

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

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

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# Difference Squares for 300.

# EGRIS

# Factor $z^{36} - 9$

$$(z^{20}+3)(z^{16}-3)$$

$$(z^6+1)(z^{30}-9)$$

$$(z^{18}+3)(z^{18}-3)$$

$$(z^6+3)(z^6+3)$$

none of them

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# Difference Squares for 400.

### Factor $81w^{20} - 4x^6$

$$(9w^5 + 2x^3)(9w^4 + 2x^3)$$

$$(2w^{10} + 9x^3)(2w^{10} + 9x^3)$$

$$(9w^{10} - 2x^3)(9w^{10} + 2x^3)$$

$$(9w^3 + 2x^{10})(9w^3 + 2x^{10})$$

none of them

EGRIS



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# Simple Ones for 100.



## Factor $x - x^2$

$$x \cdot (x-1)$$

$$(x+1)\cdot x$$

$$(x-1)\cdot(x+1)$$

$$x(1-x)$$

$$(x-1)^2$$

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# Simple Ones for 200.



# Factor $ax^2 + bx$

$$(bx + a)x$$

$$(bx-a)x$$

$$(bx+b)x$$

$$x(ax+b)$$

$$(ax-a)x$$

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# Simple Ones for 300.



### Factor 2x + 7x - wx

$$(2+w)x - 7$$

$$(7-w)x+2$$

$$(2+7)x - 7w$$

$$x(9-w)$$

$$(14 + x)w$$

### none of them

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# Simple Ones for 400.

Factor 
$$x^2y - yz^2$$

$$x \cdot (y^2 - z)$$

$$(x-z^2)\cdot y$$

$$(x^2 - y^2) \cdot (z)$$

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

$$(x-z)y(x+z)$$

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# Quadratics for 100.

Two numbers whose sum is -13 and whose product is -30

- +10, -3
  - -10, -3
  - -10, +3
  - -29, -1
  - 15, -15
  - none of them

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# Quadratics for 200.

Factor 
$$v^2 + v - 30$$

$$(v-15)(v+2)$$

$$(v-5)(v+6)$$

$$(v+10)(v-3)$$

$$(v+5)(v-6)$$

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# Quadratics for 300.



# Factor $x^2 - 2x - 15$

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

$$(x-3)(x-3)$$

$$(x+5)(x+3)$$

$$(x-5)(x+3)$$

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# Quadratics for 400.

Factor 
$$x^2 - 10x + 25$$

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

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

$$(x+5)(x+3)$$

$$(5-x)^2$$

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# Challenging for 100.

Write two solutions of  $p^2+p-20\,$  in the box below



Example: -3,+2

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# Challenging for 200.

Factor  $t^2-3t-40$  and write your solution in the box below



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Example: (t-2)(t+11)

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Quit

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# Challenging for 300.

In the box below, write a quadratic equation that has roots  $+2,-7\,$ 

Example :  $x^2 + 3x - 20$ 





# Challenging for 400.

In the box below, write a quadratic equation that has roots  $-3, +4\,$ 

Example:  $x^2 - 2x + 10$ 



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