Warm Up:

Multiply.

1. $(3x-2)(3x+2)$

$9x^2-4$

2. $(x+3)^2$ $(x+3)(x+3)$

x^2+6x+9

Review homework

14. $(5z - 1)(z + 4)$ **15.** $(2k + 3)(k - 8)$
16. $(3t + 5)(2t - 1)$ **17.** $(3x - 4)(x + 9)$
18. $(4w + 3)(w - 2)$ [redacted]

25. $5(w - 2)(4w - 1)$
26. $2(6x + 1)(x - 4)$
27. $3(3r - 5)(r + 2)$
28–33. Answers may vary. Samples are given.
28. 41, $(4s + 1)(s + 10)$; 13, $(4s + 5)(s + 2)$
29. -31, $(5v + 3)(3v - 8)$; 31, $(5v - 3)(3v + 8)$

-24

$4x^2 - 5x - 6$

$4x^2 + 3x - 8x - 6$

$x(4x + 3) - 2(4x + 3)$

Factor.

ax^2+bx+c

$4x^2-25$

-100

$4x^2+0x-25$

$4x^2+10x \mid -10x-25$

$2x(2x+5) \mid -5(2x+5)$

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

x^2-4

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

Factor.

$4x^2-36$

$4(x^2-9)$

$4(x+3)(x-3)$

$25a^2-81$

$(5a+9)(5a-9)$

$36x^2-49y^2$

$(6x+7y)(6x-7y)$

Factor. $4x^2-1$

$100x^2-25$ $25(2x+1)(2x-1)$

x^2-64 $(x+8)(x-8)$

$144x^2-196y^2$ $4(6x+7y)(6x-7y)$

Factor.

$x^2+10x+25$

$(x+5)(x+5)$ or $(x+5)^2$

x^2-6x+9

$(x-3)^2$

Factoring a Trinomial Square

ax^2+bx+c

Is this a positive perfect square?

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Is this *twice* the square root of a times the square root of c?

$2 \cdot 5 = 10$

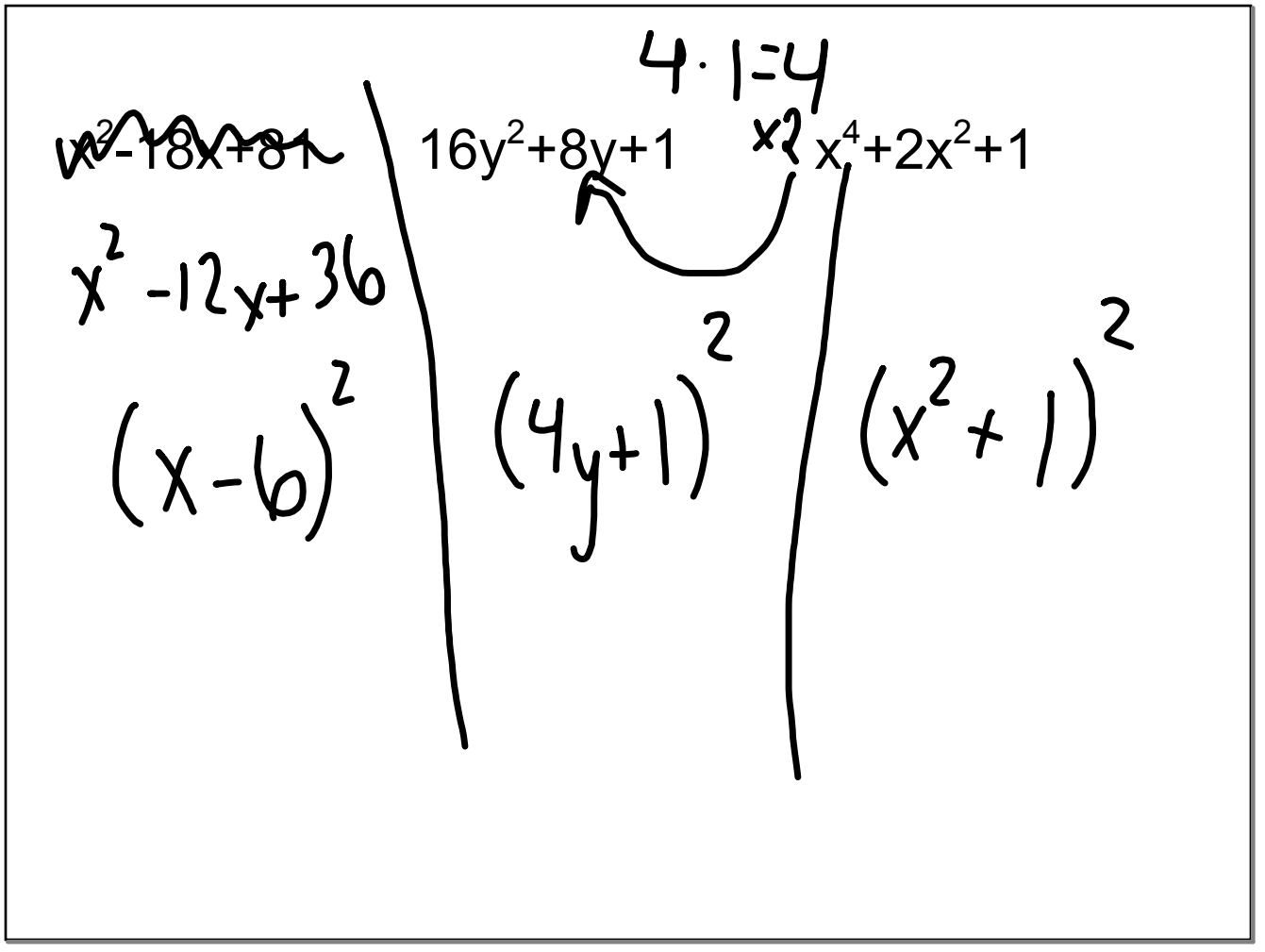
$x^2+18x+81$

$(x+9)^2$

$4x^2-20x+25$

$(2x-5)^2$

$y^2-14y+49$ $9p^2+12p+4$


4 · 1 = 4
x2
$x^2-18x+81$
$16y^2+8y+1$
x^4+2x^2+1
$x^2-12x+36$
$(x-6)^2$
$(4y+1)^2$
$(x^2+1)^2$

February 10, 2020