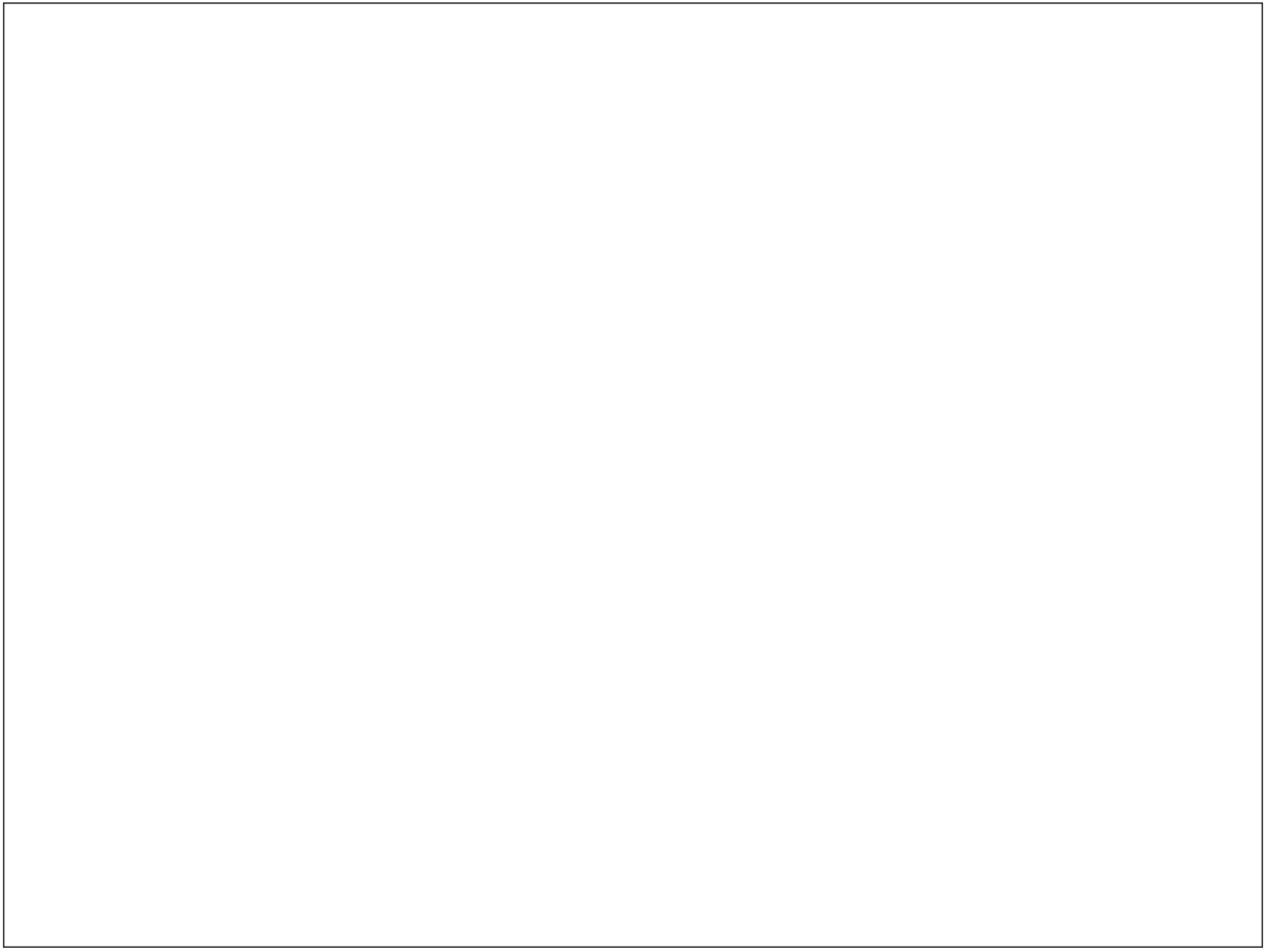


Factor

$2.3 > 6y^2 - 23y + 15 < 1.15$
$1.6 \qquad\qquad\qquad\quad 3.5$

$(6y - 5)(1y - 3)$

$6y^2 - 23y + 15$

$90 < 18.5$

$6y^2 - 18y - 5y + 15$

$6y(y-3) - 5(y-3)$

$(y-3)(6y-5)$

Factor

1. look for a GCF
2. Count # terms

- 2-term
  - 10.5d1
  - 10.5d2
  - 10.5d2
- 3-terms
  - trial & error
  - OR factor by grouping
- 4-terms
  - factor by grouping (pairs)
  - 10.5d1

Perfect Squares

Factor

$x^2 + 10x + 25$

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

$(x+5)^2$

$x^2 + 16x + 64$

$(x+8)^2$

$$x^2 - 12x + 36$$

$$(x-6)^2$$

Factor

$9y^2 + 6y + 1$

$(3y + 1)^2$

$9x^2 + 48xy + 64y^2$

$(3x + 8y)^2$

Conjugates

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

$x^2 - 25$

$x^2 + 25$

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

Prime

$9x^2 - 1$

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

$36x^2 - 49y^2$

$(6x)^2 - (7y)^2$

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

$81x^2 - 25$

$(9x)^2 - (5)^2$

$(9x+5)(9x-5)$

$$x^{10} - y^{12}$$

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

$$(x^5 + y^6)(x^5 - y^6)$$

$$x^{16} - y^8$$

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

$$(x^8 + y^4)(x^8 - y^4)$$

$$(x^8 + y^4)(x^4 + y^2)(x^4 - y^2)$$

$$(x^8 + y^4)(x^4 + y^2)(x^2 + y^2)(x - y)$$

$2x^3 - 8x$

$2x(x^2 - 4)$

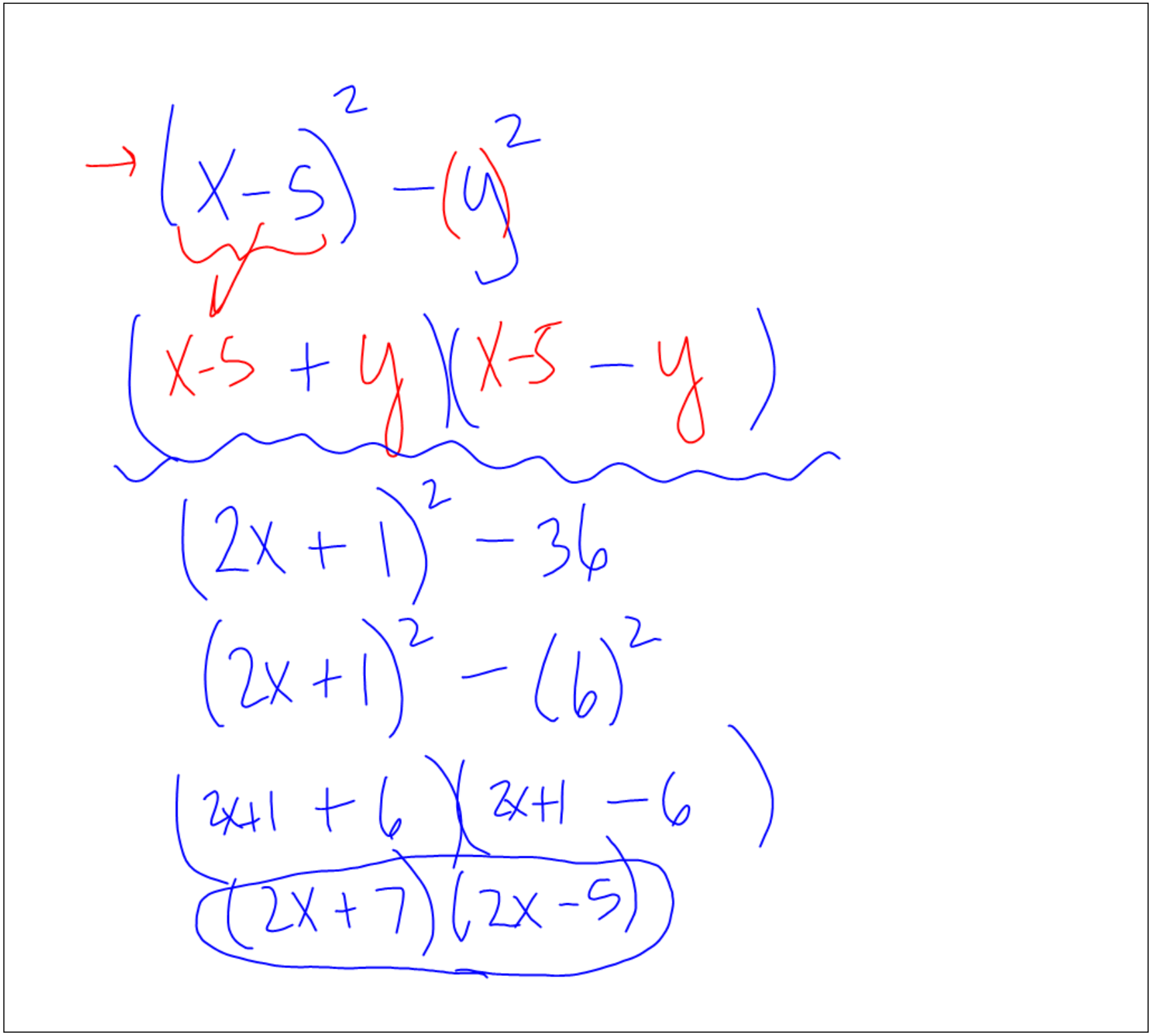
$2x(x+2)(x-2)$

$3x^5 - 3xy^4$

$3x(x^4 - y^4)$

$3x(x^2+y^2)(x^2-y^2)$

$3x(x^2+y^2)(x+y)(x-y)$


$(x-5)^2-(y)^2$
$(x-5+y)(x-5-y)$
$(2x+1)^2-36$
$(2x+1)^2-(6)^2$
$(2x+1+6)(2x+1-6)$
$(2x+7)(2x-5)$

Factor

$(x+7)^2 - 100$

$(x+7)^2 - (10)^2$

$(x+7+10)(x+7-10)$

$(x+17)(x-3)$

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

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

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

Q: $x^2 + 6x + 9 - y^2$

$(x+3)^2 - y^2$

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

$$x^2 + 12x + 36 - x^4$$

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

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

Factor

$$x^2 + 20x + 100 - 25y^2$$

$$(x+10)^2 - (5y)^2$$

$$(x+10+5y)(x+10-5y)$$