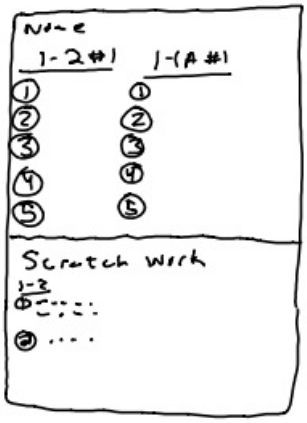
9-11-17 1st Tr.3

For RQ Credit Recovery



Factoring Cubic Polynomials

① $x^3 - 27$

perfect cubes

binomial · trinomial SOFAS

$(x - 3)(x^2 + 3x + 9)$

S - Square 1st piece
O - opposite sign
F - fuse pieces (x together)
A - always add
S - Square last piece

② Factor $x^3 + 64$

S O F A S

$(x + 4)(x^2 - 4x + 16)$

(3) Factor $8x^3 - 125$

S O F A S

$(2x - 5)(4x^2 + 10x + 25)$

(4) Factor $125x^3 + 27$

S O F A S

$(5x + 3)(25x^2 - 15x + 9)$

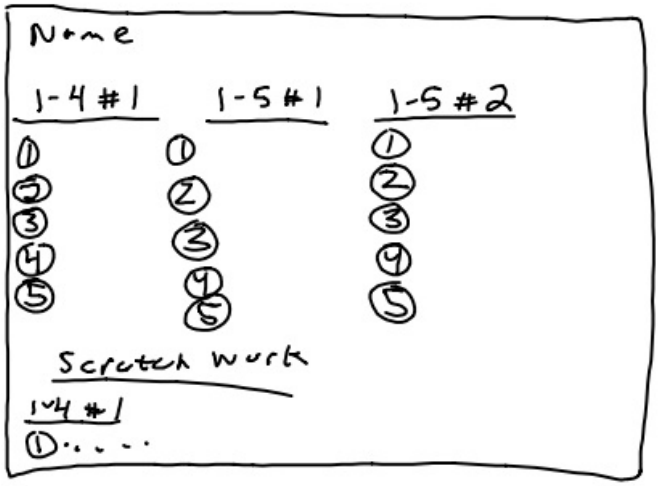
(5) Factor $y^3 - 1000$

S O F A S

$(y - 10)(y^2 + 10y + 100)$

9-11-17 3rd Try

RQ Credit Recovery



Today's Lesson

Factoring Perfect Trinomials

① Factor $x^3 + 27$

binomial · trinomial

S O F A S

$(x + 3)(x^2 - 3x + 9)$

S - Square the 1st term
O - opposite sign
F - fuse (multiply the 2 terms)
A - always add
S - square the 2nd term

② Factor $x^3 - 125$

S O F A S

$(x - 5)(x^2 + 5x + 25)$

③ Factor $x^3 + 64$

S O F A S

$(x + 4)(x^2 - 4x + 16)$

④ Factor $8x^3 - 125$

S O F A S

$(2x - 5)(4x^2 + 10x + 25)$

⑤ Factor $27x^3 - 8$

S O F A S

$(3x - 2)(9x^2 + 6x + 4)$

⑥ Factor $1000x^3 + 1$

S O F A S

$(10x + 1)(100x^2 - 10x + 1)$

9-11-17 4th Trig

RQ Credit Recovery

Name

1-3 #1 +1

① ✓
② ✓
③ ✓
④ ✓
⑤ ✗

1-5 #1 +0

① ✗
② ✗
③ ✓
④ ✓
⑤ ✗

1-5 # 2 +1

① ✓
② ✓
③ ✓
④ ✓
⑤ ✓

Scratch

1-3 #1

① $2x - 3x^2$

. . . .

②

Today's Lesson

Factoring Perfect Cubics

① Factor $x^3 + 27$

binomial · trinomial

S O F A S

$(x + 3)(x^2 - 3x + 9)$

S · square 1st term
O - opposite sign
F - fuse together (x together)
A - always add
S - square 2nd term

② Factor $x^3 - 8$

S O F A S

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

③ Factor $1000 - x^3$

SOFAS

$(10 - x)(100 + 10x + x^2)$

④ Factor $8x^3 - 125$

SOFAS

$(2x - 5)(4x^2 + 10x + 25)$

⑤ Factor $27x^3 - 64$

SOFAS

$(3x - 4)(9x^2 + 12x + 16)$

⑥ Factor $8x^3 + 1$

SOFAS

$(2x + 1)(4x^2 - 2x + 1)$