

9-30-13
3rd Trig

$$\textcircled{9} \quad 8x^3 - 125$$
$$(2x - 5) \overset{S \ O \ F \ A \ S}{(4x^2 + 10x + 25)}$$

$$\textcircled{28} \quad a - 5 \sqrt{a^2 - 25}$$
$$\begin{array}{r} a + 5 \\ a - 5 \sqrt{a^2 + 0a - 25} \\ - \quad a^2 - 5a \quad \downarrow \\ \hline \quad \quad 5a - 25 \\ - \quad 5a - 25 \\ \hline \quad \quad \quad 0 \end{array}$$

$$\textcircled{29} \quad a^2 + a + 2 \sqrt{a^3 + 2a^2 + 3a + 2}$$
$$\begin{array}{r} a + 1 \\ a^2 + a + 2 \sqrt{a^3 + 2a^2 + 3a + 2} \\ - \quad a^3 + a^2 + 2a \quad \downarrow \\ \hline \quad \quad a^2 + a + 2 \\ \quad \quad a^2 + a + 2 \\ \hline \quad \quad \quad 0 \end{array}$$

$$\textcircled{14} \quad 45n^3y - 18n^4y$$
$$9n^3y (5 - 2n)$$

$$\textcircled{18} \quad (2k^3 + 2k) + (-7k^2 - 7)$$
$$\underline{2k}(k^2 + 1) + \underline{-7}(k^2 + 1)$$
$$(k^2 + 1)(2k - 7)$$

$$\textcircled{6} \quad 9x^2 + 30xy + 25y^2 \quad \begin{matrix} 1, 2, 5 \\ 5, 5 \end{matrix}$$

$$(9x \quad 1y)(x \quad 25y)$$

$$(9x \quad 25y)(x \quad 1y)$$

$$(9x \quad 5y)(x \quad 5y)$$

$$(3x + 1y)(3x + 25y)$$

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

$$(3x + 5y)^2$$

SAT 2-3 16, 17

2-4 20

2-6 9, 11

$$\textcircled{10} \quad 64n^3 + y^3$$

$$(4n + y) \overset{\text{S O F A S}}{(16n^2 - 4ny + y^2)}$$

New Practice

$$\begin{array}{r} x - 4 + \frac{-13}{x-2} \\ x-2 \overline{) x^2 - 6x - 5} \\ \underline{-x^2 - 2x} \\ -4x - 5 \\ \underline{-(-4x + 8)} \\ -13 \end{array}$$

$$x^3 - 36x = 0$$

$$x(x^2 - 36) = 0$$

$$x(x+6)(x-6) = 0$$

$$\begin{array}{ccc} \downarrow & \downarrow & \downarrow \\ x=0 & \text{or } x=-6 & \text{or } x=6 \end{array}$$

How many possible ways could
you factor $6x^2 + 17x + 5$? $\frac{5}{1.5}$

$$(2x + 1)(3x + 5)$$

$$(2x + 5)(2x + 1)$$

$$(6x + 1)(x + 5)$$

$$(6x + 5)(x + 1)$$

4

9-30-13
4th Trig

(25) $\frac{4x-5}{5x-6}$

$$\begin{array}{r} 5x-6 \neq 0 \\ +6 \quad 75 \\ \hline 5x \neq 6 \\ \frac{5x}{5} \neq \frac{6}{5} \\ x \neq 1\frac{1}{5} \end{array}$$

(34) $20x^2 + 41x - 9 = 0$

$$\begin{array}{l} a=20 \\ b=41 \\ c=-9 \\ 4ac=-720 \end{array} \quad X = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$
$$X = \frac{-41 \pm \sqrt{1681 - -720}}{40}$$
$$X = \frac{-41 \pm \sqrt{2401}}{40}$$
$$x = \frac{-41+49}{40} \quad \text{or} \quad x = \frac{-41-49}{40}$$
$$x = \frac{8}{40} = \frac{1}{5} = .2 \quad x = \frac{-90}{40} = -2\frac{1}{4}$$

(7) $2x^2 + 15x - 50$

		-100
		1,100
		2,50
		4,25
		-5,20

$$(2x^2 + 20x) + (5x - 50)$$
$$2x(x+10) + 5(x+10)$$
$$(x+10)(2x-5)$$

How many combinations exist
as possibilities when
factoring $6x^2 + 43x + 7$? (4)

$(6x + 1)(x + 7)$	$\frac{7}{1,7}$
$(6x + 7)(x + 1)$	
$(3x + 1)(2x + 7)$	
$(3x + 7)(2x + 1)$	

SAT 2-3 #16,17
2-4 #20
2-6 #9,11

$$\textcircled{13} \quad 3n^4y + 9n^6y^2$$

$$3n^4y(1 + 3n^2y)$$

SAT 2-6

$$\textcircled{9} \quad \text{Avg. score} = 80$$

5 players

$$\begin{array}{r} 80 \\ \times 5 \\ \hline 400 \end{array}$$

$$\underline{50} + \underline{50} + \underline{100} + \underline{100} + \underline{100} = 400$$

$$\textcircled{29} \quad a^2 + a + 2 \overline{) a^3 + 2a^2 + 3a + 2}$$

$$\begin{array}{r} a + 1 \\ a^3 + 2a^2 + 3a + 2 \\ - (a^3 + a^2 + 2a) \quad \downarrow \\ \hline a^2 + a + 2 \\ - (a^2 + a + 2) \\ \hline 0 \end{array}$$