POD: 10-1-13

Factor: $14x^3 - 2x^2 + 8x$

$14x^3 \rightarrow 2 \cdot 7 \cdot x \cdot x \cdot x$

$2x^2 \rightarrow 2 \cdot x \cdot x$

$8x \rightarrow 2 \cdot 2 \cdot 2 \cdot x$

GCF: $2x$

$\frac{14x^3}{2x} - \frac{2x^2}{2x} + \frac{8x}{2x}$

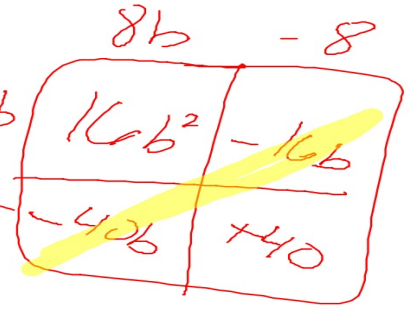
$(7x^2 - x + 4)2x$

Answer: $2x(7x^2 - x + 4)$

① $(8b-8)(2b-5)$

$16b^2 - 40b - 16b + 40$

$16b^2 - 56b + 40$



Practice: Identify the type of problem and then solve

1. $20y^4 - 15y^3 + 30y^2$

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

3. $10x^5 - 2x^4 + 4x^2$

4. $(4w + 13)(w^2 + 2)$

Notes: Multiplying Special Cases, Perimeter, & Area

Square of a Binomial

1. $(x + 4)^2$

$(x+4)(x+4)$

$x^2+4x+4x+16$

$x^2+8x+16$

2. $(x - 3)^2$

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

x^2-6x+9

3. $(2m - 3)^2$

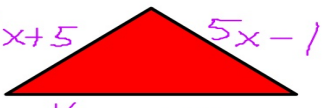
$(2m-3)(2m-3)$

$4m^2-12m+9$

Distance around an object

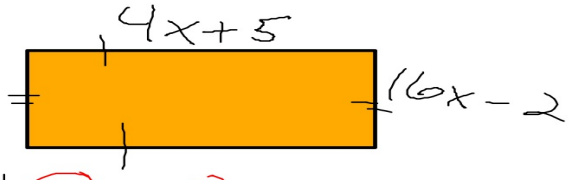
Perimeter: adding & subtracting

$P = 2l + 2w$

1. 

$2x+5+5x-1+16x+3$

$23x+7$

2. 

$4x+5+4x+5+16x-2+16x-2$

$40x+6$

Space Inside

Area Problems: Multiplying

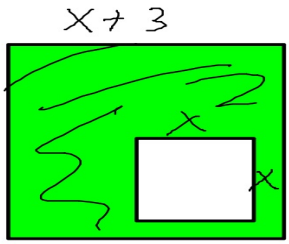
$x+6$

$x+4$

$(x+6)(x+4)$

$x^2+4x+6x+24$

$x^2+10x+24$



Area of a Shaded Region

(Total Area) — (Area of Unshaded Region)

Total

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

$x^2+3x+3x+9$

x^2+6x+9

Unshaded

$x \cdot x$

x^2

$x^2+6x+9 - x^2$

$6x+9$

1. $3x+5+2x$

$6x+10x$

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

$12x+6x$

ABCDEFGHIJKLMNOPQRSTUVWXYZ

TOD: 10-1-13

Describe how to find the perimeter and the area of a geometric figure.