

SIMPLIFY ALL PROBLEMS

1. Add:  $(2x^2 + 3x - 8) + (4x - 8x^2 - 5)$

2. Simplify:  $-3x(2x - 4) - 3(x^2 - 5x)$

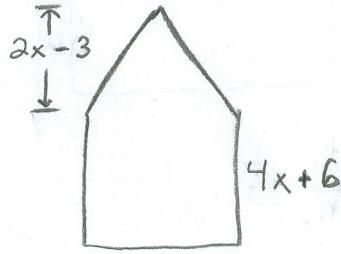
3.  $(2x + 6)(x - 4)$

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

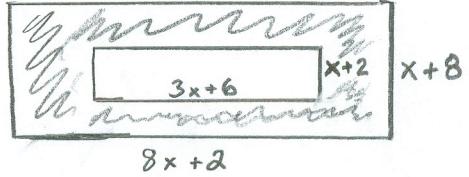
5.  $(5x - 2)(5x + 2)$

6.  $(2c - 4)(3c^2 - 5c + 2)$

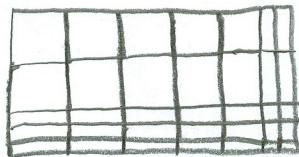
7. Find the area:



8. Find the area of the shaded region.



9. What problem does this represent? What is the product?



What is the perimeter?

1. Add:  $(2x^2 + 3x - 8) + (4x - 8x^2 - 5)$   
 $\boxed{-6x^2 + 7x - 13}$

2. Simplify:  $-3x(2x - 4) - 3(x^2 - 5x)$   
 $-6x^2 + 12x - 3x^2 + 15x$   
 $\boxed{-9x^2 + 27x}$

3.  $(2x + 6)(x - 4)$   
 $2x^2 - 8x + 6x - 24 = \boxed{2x^2 - 2x - 24}$

4.  $(2x - 7)^2$   
 $4x^2 - 28x + 49$

5. FFL  $\frac{(5x - 2)(5x + 2)}{(a^2 - b^2)}$   
 $\boxed{25x^2 - 4}$

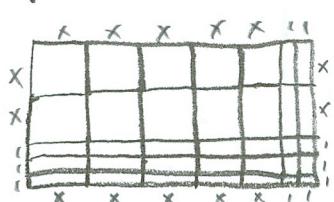
6.  $(2c - 4)(3c^2 - 5c + 2)$   
 $6c^3 - 10c^2 + 4c - 12c^2 + 20c - 8$   
 $= \boxed{6c^3 - 22c^2 + 24c - 8}$

7. Find the area:  
  
 Square:  $16x^2 + 48x + 36$   
 Triangle:  $4x^2 - 9$   
 Total:  $\underline{\underline{20x^2 + 48x + 27}}$

8. Find the area of the shaded region.

Big Rectangle  
 $8x^2 + 66x + 16$   
 Small Rectangle  
 $3x^2 + 12x + 12$   
 Shaded Area  
 $\boxed{5x^2 + 54x + 4}$

9. What problem does this represent? What is the area?



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

$10x^2 + 19x + 6$

What is the perimeter?

$14x + 10$