Warm Up

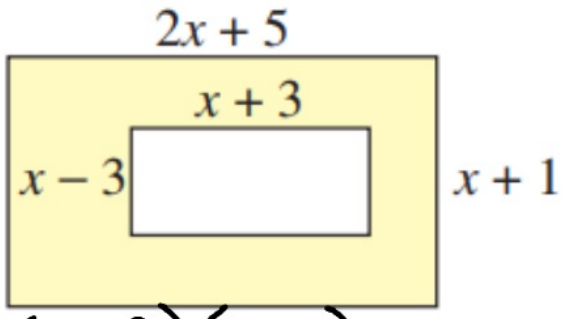
April 23, 2019

1.) Find the perimeter of a triangle with the following side lengths:

y, -2y + 4, and 7y - 3

$y + (-2y + 4) + (7y - 3) = 6y + 1$

2.) Find the area of the shaded region.



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

$2x^2+2x+5x+5$

$2x^2+7x+5$

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

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

x^2-9

$2x^2+7x+5-1(x^2-9)$

$x^2+7x+14$

Dividing Polynomials by a Monomial

Recall the Quotient Rule: $\frac{x^a}{x^b} =$

To divide a polynomial by a monomial, divide each term of the numerator by the term in the denominator.

4. $\frac{6x+9}{3}$

$\frac{6x}{3} + \frac{9}{3}$

$2x+3$

5. $\frac{40x^2-8x}{8}$

$\frac{40x^2}{8} - \frac{8x}{8}$

$5x^2-x$

6. $\frac{7n^2+4n}{n}$

$\frac{7n^2}{n^1} + \frac{4n^1}{n^1}$

$7n+4$

7. $\frac{12x^3 + 15x}{3x^2}$

$\frac{12x^3}{3x^2} + \frac{15x}{3x^2}$

$4x + 5x^{-1}$

$4x + \frac{5}{x}$

8. $\frac{10v^2 + 5v - 15}{5}$

$\frac{10v^2}{5} + \frac{5v}{5} - \frac{15}{5}$

$2v^2 + v - 3$

9. $\frac{18c^3 - 21c^2 + 3c}{3c}$

$\frac{18c^3}{3c} - \frac{21c^2}{3c} + \frac{3c}{3c}$

$6c^2 - 7c + 1$

13. $\frac{14x^6y^3 - 49x^5y^9}{-7x^4y}$

$\frac{14x^6y^3}{-7x^4y} - \frac{49x^5y^9}{-7x^4y}$

$-2x^2y^2 + 7xy^8$

14. $\frac{-25x^4y^3 + 30x^2y^5}{-5x^2y}$

$\frac{-25x^4y^3}{-5x^2y} + \frac{30x^2y^5}{-5x^2y}$

$5x^2y^2 - 6y^4$

15. $\frac{20a^7b^3c^2 - 5abc}{5abc}$

$\frac{20a^7b^3c^2}{5abc} - \frac{5abc}{5abc}$

$4a^6b^2c - 1$

16. $\frac{16x^6 - 12x^4 + 4x^2}{4x^2}$	**17.** $\frac{12c^5d^4 + 18c^4d^3}{3c^2d^3}$	**18.** $\frac{-24x^7 + 9x^3 - 15x}{3x^5}$
19. $\frac{15x^5 - 25x^3 + 5x^2}{5x^4}$	**20.** $\frac{28x^5y^4z^3 + 8x^4y^3z^2}{4x^2y^2z^2}$	**21.** $\frac{30c^5d^9 - 12c^4d^8 + 3c^3d^7}{3c^2d^2}$