How do I factor out the GCF?

Step 1: Identify the GCF of the polynomial

14, 4, 2 → 2

$$14y^5 - 4y^3 + 2y$$

GCF: 2y

What is the largest monomial that we can factor out?

The GCF is.....*2y*

Step 2: Divide the GCF out of every term of the polynomial

Factor out our GCF 2y →

$$\frac{14y^5}{2y} - \frac{4y^3}{2y} + \frac{2y}{2y}$$

$$2y(7y^4 - 2y^2 + 1)$$

$\frac{y^5}{y} = y^4$

Oct 16-2:09 PM

Anything in common?

20x+15y-30z

$5(4x + 3y - 6z)$

Feb 2-1:43 PM

$\frac{3x}{x} + \frac{10yx}{x} - \frac{7xyz}{x}$

Anything Common?

$$3x + 10xy - 7xyz$$

$x(3 + 10y - 7yz)$

Feb 2 - 10:44 AM

Mar 18-12:54 PM

Common Factor!

1. $a^5c^6z^{11} + a^9c^{10}z^{13} =$

$a^5c^6z^{11}(1 + a^4c^4z^2)$

$5\frac{25x^{12}}{5x^5} - \frac{15x^5}{5x^5}$

2. $25x^7 - 15x^5$

$5x^5(5x^2 - 3)$

Feb 2 - 10:54 AM

3. $12x^7y^8 - 24x^9y^4$

$12x^7y^4$

$12x^7y^4(y^4 - 2x^2)$

Feb 2 - 10:59 AM

$3x^5 + 6x^3$

$3 \cdot x \cdot x \cdot x \cdot x \cdot x + 6 \cdot x \cdot x \cdot x$

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

Mar 18-1:08 PM

$a^3b^4c^7 - 3a^4b + a^{10}b^6c^5$

$a^3b(b^3c^7 - 3a + a^7b^5c^5)$

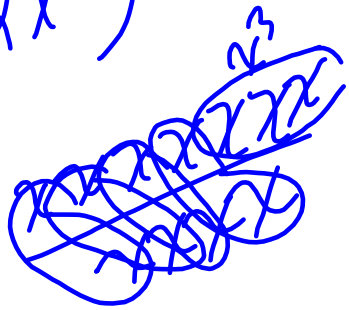
Feb 1-9:24 AM

$25x^4 + 50x^7$

$\frac{x^7}{x^4}$

$25x^4$ $25x^4$

$25x^4(1 + 2x^3)$



Mar 18-10:16 AM

3.3 Common Factors of a Polynomial

Exercises Page 155

A

4 5 6a, b

B

a,b,c

7 8 9 10 11 12 13 14

15 16 17 18 19 20

b

C

21 22

Reflect

6a
8 a,b,c
10 all
14 all

Exercises TOC