

Factor each completely.

1. $3c^4 - 25c^2 - 18$

2. $5x^3 + x^2 + 20x + 4$

3. Solve this system of equations.

$$4m + 6n = 18$$

$$6m + 9n = 28$$

Bellwork Honors Alg 2

Friday, September 9, 2016

Answers

Factor each completely.

1. $3c^4 - 25c^2 - 18$

$$(c^2 - 9)(3c^2 + 2)$$

$$\begin{array}{r} -54 \\ -27 \quad +2 \\ -25 \end{array}$$

	c^2	-9
$3c^2$	$3c^4$	$-27c^2$
$+2$	$+2c^2$	-18

$$(c^2 - 9)(3c^2 + 2) \rightarrow (c^2 - 3)(c^2 + 3)(3c^2 + 2)$$

3. Solve this system of equations.

$$\begin{array}{l} 3(4m + 6n = 18) \\ 2(6m + 9n = 28) \end{array}$$

$$\begin{array}{r} 12m + 18n = 54 \\ - 12m + 18n = 56 \end{array}$$

$$0 = -2 \rightarrow \text{FALSE}$$

No solution

2. $5x^3 + x^2 + 20x + 4$

	$5x$	$+1$
x^2	$5x^3$	$+x^2$
$+4$	$+20x$	$+4$

$$(x^2 + 4)(5x + 1)$$