

Algebra 1 Bellwork

Monday, April 13, 2015

Factor each completely.

1. $40c^5 - 48c^2$

2. $49m^4 - 16p^2$

3. $g^4 - 16$

4. $24b^3 - 150b$

5. $6a^2 - 5a - 21$

6. $3k^3 - 54k^2 + 243k$

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Factor each completely.

1. $40c^5 - 48c^2$

$= 8c^2(5c^3 - 6)$

2. $49m^4 - 16p^2$

$= (7m^2 + 4p)(7m^2 - 4p)$

3. $g^4 - 16$

$= (g^2 + 4)(g^2 - 4)$
 $= (g^2 + 4)(g + 2)(g - 2)$

4. $24b^3 - 150b$

$= 6b(4b^2 - 25)$
 $= 6b(2b + 5)(2b - 5)$

5. $6a^2 - 5a - 21 = (3a - 7)(2a + 3)$

~~-126~~
 ~~-14~~ ~~$+9$~~
 ~~-5~~

	$3a$	-7
$2a$	$6a^2$	$-14a$
$+3$	$+9a$	-21

6. $3k^3 - 54k^2 + 243k$

$= 3k(k^2 - 18k + 81)$
 $= 3k(k - 9)^2$

~~81~~
 ~~-9~~ ~~-9~~
 ~~-18~~