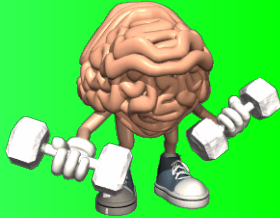


Warm Up



**Factor the following
Using the Appropriate method:**

1) $-56a^7 + 48a^6 + 16a^3$
 $-8a^3(7a^4 - 6a^3 - 2)$

2) $x^2 + x - 56$
 $(x+8)(x-7)$

3) $4r^2 + 7r - 2$
 $\frac{-1}{-1} \times \frac{+8}{+6} = \frac{+8}{+6} = \frac{4}{3}$
 $\frac{-1}{-1} + \frac{+6}{+6} = +7$
 $4r^2 + 8r - 1r + 2$
 $4r(r+2) - 1(r+2)$
 $(4r-1)(r+2)$

$\frac{a^7}{a^3} = a^4$

Extra practice

Math 10B

Name _____

Factoring: Hard Trinomials

Date _____

Factor each completely.

- | | |
|--------------------------|---------------------------|
| 1) $6m^2 + 2m - 8$ | 2) $3x^2 - 16x + 5$ |
| 3) $28r^2 - 116r + 16$ | 4) $2n^2 - 17n - 9$ |
| 5) $3r^2 + 2r - 16$ | 6) $5a^2 - 34a + 45$ |
| 7) $8x^2 - 50x + 50$ | 8) $4n^2 - 15n + 9$ |
| 9) $4x^2 + 17x + 4$ | 10) $4m^2 + 13m + 10$ |
| 11) $4b^2 - 3b - 10$ | 12) $8n^2 - 26n - 24$ |
| 13) $u^2 + 16uv + 64v^2$ | 14) $2x^2 - 22xy + 48y^2$ |
| 15) $x^2 - 11xy + 30y^2$ | 16) $4a^2 - 8ab - 12b^2$ |

Answers to Factoring: Hard Trinomials (ID: 1)

- | | | | |
|-------------------|---------------------|--------------------|--------------------|
| 1) $2(3m+4)(m-1)$ | 2) $(3x-1)(x-5)$ | 3) $4(7r-1)(r-4)$ | 4) $(2n+1)(n-9)$ |
| 5) $(3r+8)(r-2)$ | 6) $(5a-9)(a-5)$ | 7) $2(x-5)(4x-5)$ | 8) $(n-3)(4n-3)$ |
| 9) $(x+4)(4x+1)$ | 10) $(m+2)(4m+5)$ | 11) $(b-2)(4b+5)$ | 12) $2(n-4)(4n+3)$ |
| 13) $(u+8v)^2$ | 14) $2(x-8y)(x-3y)$ | 15) $(x-5y)(x-6y)$ | 16) $4(a-3b)(a+b)$ |

$$2) \overbrace{3x^2 - 16x + 5}^{x \rightarrow 15} + -16$$

$$(3x-1)(x-5)$$

$$3x^2 - 15x - 1x + 5$$

$$3x(x-5) - 1(x-5)$$

$$(3x-1)(x-5)$$

$$4) \overbrace{2n^2 - 17n - 9}^{x \rightarrow -18} + -17$$

$$(2n+1)(n-9)$$

$$2n^2 - 18n + 1n - 9$$

$$2n(n-9) + 1(n-9)$$

$$(n-9)(2n+1)$$

$$6) \overbrace{5a^2 - 34a + 45}^{x \rightarrow 25} + -34$$

$$(5a-9)(a-5)$$

$$5a^2 - 25a - 9a + 45$$

$$5a(a-5) - 9(a-5)$$

$$(5a-9)(a-5)$$

$$8) \overbrace{4n^2 - 15n + 9}^{x \rightarrow 36} + -15$$

$$(n-3)(4n-3)$$

$$4n^2 - 12n - 3n + 9$$

$$4n(n-3) - 3(n-3)$$

$$(4n-3)(n-3)$$

TAKE-HOME QUIZ/REVIEW

- Start now
- See what you can do on your own and where you need help
- This is review of what we have covered in this unit so far
- Take it seriously; do not copy!