

# DO NOW

Factor:  $x^2 + 2x + 1$

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## 7.3 Factoring Trinomials - Day 3

Factor:  $x^2 + 2x + 1$   $P=1$   
 $S=2$   
 $(x+1)(x+1)$

Factor:  $x^2 + 2xy + y^2$   
 $(x+y)(x+y)$

|       |       |       |
|-------|-------|-------|
| $x^2$ | $y^2$ |       |
| $xy$  | $xy$  | $xy$  |
| $xy$  | $xy$  | $2xy$ |

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Factor:

1.  $a^2 - 3ab + 2b^2$   $P=2$   
 $S=-3$   
 $(a-2b)(a-b)$   $(-1, 2)$

|       |         |        |
|-------|---------|--------|
| $a^2$ | $2b^2$  |        |
| $ab$  | $-b^2$  | $-ab$  |
| $ab$  | $-2b^2$ | $-3ab$ |

2.  $s^2 + 8st + 16t^2$   $P=16$   
 $S=8$   
 $(s+4t)(s+4t)$   $(4, 4)$

3.  $x^2 + 6xy - 27y^2$   $P=-27$   
 $S=6$   
 $(x+9y)(x-3y)$   $(9, -3)$

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4.  $a^4 - 5a^2 - 14$   $P=-14$   
 $S=-5$   
 $(a^2-7)(a^2+2)$   $(-7, 2)$

|       |       |         |
|-------|-------|---------|
| $a^4$ | $-14$ |         |
| $a^2$ | $-7$  | $-7a^2$ |
| $a^2$ | $2$   | $2a^2$  |
|       |       | $-5a^2$ |

5.  $x^6 - 12x^3 + 20$   $P=20$   
 $S=-12$   
 $(x^3-2)(x^3-10)$   $(-2, -10)$

6.  $b^8 + 18b^4 + 17$   
 $(b^4+1)(b^4+17)$

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TRY:

6.  $x^2 + 7xy + 12y^2$   
 $(x+3y)(x+4y)$

7.  $x^4 + 12x^2 + 36$   
 $(x^2+6)(x^2+6)$

8.  $n^6 - 2n^3 - 24$   
 $(n^3+4)(n^3-6)$

9.  $3a^2 + 7ab + 2b^2$   
 $(3a+b)(a+2b)$

|   |   |   |
|---|---|---|
| 3 | 2 |   |
| 1 | 1 | 1 |
| 3 | 2 | 6 |
|   |   | 7 |

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# HOMework

Worksheet - HW 7.3 - Day 2

Factorable Trinomials:

$ax^2 + bx + c$   
 $ax^2 + bxy + cy^2$   
 $ax^4 + bx^3 + c$   
 $ax^6 + bx^3 + c$

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