Name: _____ Class: _____ Date: _____ ID: A

MA90 Exercises for section 6.2 Factoring Trinomials

Short Answer

1. Factor the trinomial.

   $x^2 + 7x + 12$

2. Factor the trinomial.

   $x^2 + 11x + 30$

3. Factor the trinomial.

   $x^2 - x - 12$

4. Factor the trinomial.

   $y^2 + y - 20$

5. Factor the problem completely. First, factor out the greatest common factor, and then factor the remaining trinomial.

   $3x^2 + 9x + 6$

   .

6. Factor the problem completely. First, factor out the greatest common factor, and then factor the remaining trinomial.

   $100p^2 - 1{,}600p + 6{,}300$

   .

7. Factor the following problem completely. First, factor out the greatest common factor, and then factor the remaining trinomial.

   $3r^3 + 3r^2 - 36r$

   .

8. Factor the problem completely. First, factor out the greatest common factor, and then factor the remaining trinomial.

   $2y^4 - 4y^3 - 16y^2$

   .

9. Factor the problem completely. First, factor out the greatest common factor, and then factor the remaining trinomial.

   $3y^3 - 3y^2 - 90y$

   .

10. Factor the trinomial.

    $x^2 + 13xy + 42y^2$

    .

11. Factor the trinomial.

    $a^2 - 7ab + 10b^2$

    .

12. Factor the trinomial.

$x^2 + 4xa - 32a^2$

.

13. Factor the trinomial.

$x^2 - 5xb + 6b^2$

.

14. If one of the factors of $x^2 + 25x + 144$ is $x + 9$, what is the other factor?

.

15. What polynomial, when factored, gives $(4x + 3)(x - 1)$?

MA90 Exercises for section 6.2 Factoring Trinomials
Answer Section

SHORT ANSWER

1. ANS:
$(x+3)\cdot(x+4)$

PTS: 1
2. ANS:
$(x+5)\cdot(x+6)$

PTS: 1
3. ANS:
$(x-4)\cdot(x+3)$

PTS: 1
4. ANS:
$(y+5)\cdot(y-4)$

PTS: 1
5. ANS:
$3(x+1)\cdot(x+2)$

PTS: 1
6. ANS:
$100(p-7)\cdot(p-9)$

PTS: 1
7. ANS:
$3r\cdot(r+4)\cdot(r-3)$

PTS: 1
8. ANS:
$2y^2\cdot(y+2)\cdot(y-4)$

PTS: 1
9. ANS:
$3y\cdot(y+5)\cdot(y-6)$

PTS: 1

10. ANS:
$(x+6y)\cdot(x+7y)$

PTS: 1

11. ANS:
$(a-2b)\cdot(a-5b)$

PTS: 1

12. ANS:
$(x-4a)\cdot(x+8a)$

PTS: 1

13. ANS:
$(x-2b)\cdot(x-3b)$

PTS: 1

14. ANS:
$x+16$

PTS: 1

15. ANS:
$4x^2-x-3$

PTS: 1