

**1.3 Trinomials**

Name \_\_\_\_\_

|   |                            |
|---|----------------------------|
| Factor.   |                            |
| <b>1.</b> $x^2 + 5x + 6$  | <b>2.</b> $x^2 + 8x + 15$  |
| <b>3.</b> $x^2 - 5x + 6$  | <b>4.</b> $x^2 - 8x + 15$  |
| <b>5.</b> $x^2 - 9x + 14$   | <b>6.</b> $x^2 - 7x + 12$  |
| <b>7.</b> $x^2 - 9x + 18$   | <b>8.</b> $x^2 - 7x + 10$  |
| <b>9.</b> $x^2 + 3x - 18$   | <b>10.</b> $x^2 + 2x - 15$ |
| <b>11.</b> $x^2 + 4x - 10$  | <b>12.</b> $x^2 + 7x - 20$ |
| Answers: <b>1.</b> $(x + 2)(x + 3)$ ; <b>3.</b> $(x - 2)(x - 3)$ ; <b>5.</b> $(x - 2)(x - 7)$ ; <b>7.</b> $(x - 3)(x - 6)$ ; <b>9.</b> $(x - 3)(x + 6)$ ;<br><b>11.</b> prime |                            |

|   |                                 |
|---|---------------------------------|
| Factor.   |                                 |
| <b>13.</b> $x^2 + 5xy - 6y^2$   | <b>14.</b> $x^2 + 7xy - 8y^2$   |
| <b>15.</b> $x^2 - xy - 12y^2$   | <b>16.</b> $x^2 + 11xy - 12y^2$ |
| Factor completely.  |                                 |
| <b>17.</b> $3x^2 - 15x + 18$  | <b>18.</b> $2x^2 + 4x - 30$     |
| <b>19.</b> $x^2y + 6xy + 8y$  | <b>20.</b> $4x^2y - 12xy - 40y$ |
| Answers: <b>13.</b> $(x - y)(x + 6y)$ ; <b>15.</b> $(x + 3y)(x - 4y)$ ; <b>17.</b> $3(x - 2)(x - 3)$ ; <b>19.</b> $y(x + 2)(x + 4)$ |                                 |

Factor.

**21.**  $3x^2 + 14x + 8$

**22.**  $2x^2 + 7x + 6$

**23.**  $2x^2 - 11x + 12$

**24.**  $3x^2 - 17x + 10$

Answers: **21.**  $(x + 4)(3x + 2)$ ; **23.**  $(x - 4)(2x - 3)$

Factor.

25.  $6x^2 - 11x - 10$

26.  $8x^2 - 11x + 3$

27.  $4x^2 + 5x + 2$

28.  $6x^2 - 2x + 5$

Answers: 25.  $(2x - 5)(3x + 2)$ ; 27. prime