Factoring quadratics — One positive, one negative

Name: _____ Date: _____

Factor each one. The two numbers have opposite signs — write them with their signs.

1. $x^2 - 15x - 100 = (x + \_\_\_\_)\ (x + \_\_\_\_)$

2. $x^2 + 10x - 336 = (x + \_\_\_\_)\ (x + \_\_\_\_)$

3. $x^2 + 4x - 221 = (x + \_\_\_\_)\ (x + \_\_\_\_)$

4. $x^2 + 23x - 50 = (x + \_\_\_)\ (x + \_\_\_)$

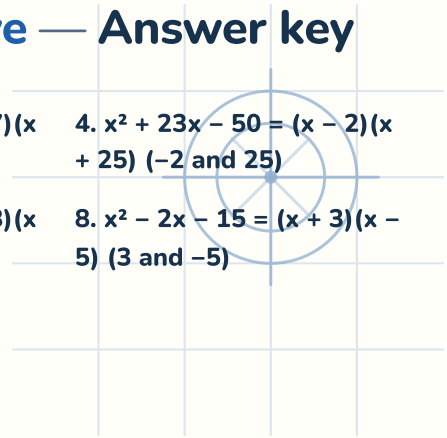
5. $x^2 - 8x - 180 = (x + \_\_\_\_)\ (x + \_\_\_\_)$

6. $x^2 + 10x - 24 = (x + \_\_\_)\ (x + \_\_\_)$

7. $x^2 + 5x - 414 = (x + \_\_\_\_)\ (x + \_\_\_\_)$

8. $x^2 - 2x - 15 = (x + \_\_\_)\ (x + \_\_\_)$

Factoring quadratics · One positive, one negative — Answer key



1. $x^2 - 15x - 100 = (x - 20)(x + 5)$ (−20 and 5)

2. $x^2 + 10x - 336 = (x + 24)(x - 14)$ (24 and −14)

3. $x^2 + 4x - 221 = (x + 17)(x - 13)$ (17 and −13)

4. $x^2 + 23x - 50 = (x - 2)(x + 25)$ (−2 and 25)

5. $x^2 - 8x - 180 = (x + 10)(x - 18)$ (10 and −18)

6. $x^2 + 10x - 24 = (x + 12)(x - 2)$ (12 and −2)

7. $x^2 + 5x - 414 = (x - 18)(x + 23)$ (−18 and 23)

8. $x^2 - 2x - 15 = (x + 3)(x - 5)$ (3 and −5)