

A2.A.3: Quadratic-Linear Systems 3: Solve systems of equations involving one linear equation and one quadratic equation algebraically

- 1 The sum of two numbers is 10, and the sum of their squares is 58. Find the numbers.
- 2 The sum of two numbers is 15, and the sum of their squares is 137. What are the numbers?
- 3 The difference between two numbers is 2, and the sum of their squares is 10. Find the numbers.
- 4 The difference of two numbers is 2 and the sum of their squares is 100. Find the numbers.
- 5 Find two numbers such that their difference equals $\frac{1}{2}$ and their squares are equal.
- 6 The sum of two numbers is 7 times their difference. The difference of their squares is twice their sum. Find the numbers.
- 7 A number is composed of two digits the difference of whose squares is 20. If the digits are interchanged the resulting number is 18 less than the original number. Find the number.
- 8 The quotient obtained by dividing one of two numbers by the other is .75. The product of the numbers is 300. Find the numbers.
- 9 The distance between two opposite corners of a rectangular field is 17 rods, and its perimeter is 46 rods. Find the length and breadth of the field.
- 10 The perimeter of a rectangle is 92 feet and its diagonal is 34 feet. Find the area of the rectangle.

A2.A.3: Quadratic-Linear Systems 3: Solve systems of equations involving one linear equation and one quadratic equation algebraically

Answer Section

- 1 ANS:
3 and 7

PTS: 20 REF: 099812al
- 2 ANS:
4 and 11

PTS: 10 REF: 099510al
- 3 ANS:
1 and 3

PTS: 10 REF: 069305al
- 4 ANS:
6 and 8

PTS: 10 REF: 039811al
- 5 ANS:
 $\frac{1}{4}$ and $-\frac{1}{4}$

PTS: 12 REF: 090508al
- 6 ANS:
6 and 8

PTS: 10 REF: 089311al
- 7 ANS:
64

PTS: 10 REF: 060015al
- 8 ANS:
15 and 20

PTS: 12 REF: 010509al
- 9 ANS:
15 and 8

PTS: 10 REF: 069915al
- 10 ANS:
480

PTS: 20 REF: 030014al