In the following questions construct equations from the information given and then solve to find the unknown.

1. When a number \( x \) is added to its square, the total is 12. Find two possible values for \( x \).

2. A number \( x \) is equal to its own square minus 42. Find two possible values for \( x \).

3. If the area of the rectangle below is 10 cm\(^2\), calculate the only possible value for \( x \).

4. If the area of the rectangle below is 52 cm\(^2\), calculate the only possible value for \( x \).

5. A triangle has a base length of \( 2x \) cm and a height of \( (x - 3) \) cm. If its area is 18 cm\(^2\), calculate its height and base length.

6. A triangle has a base length of \( (x - 8) \) cm and a height of \( 2x \) cm. If its area is 20 cm\(^2\), calculate its height and base length.

7. A right-angled triangle has a base length of \( x \) cm and a height of \( (x - 1) \) cm. If its area is 15 cm\(^2\) calculate the base length and height.

8. A rectangular garden has a square flower bed of side length \( x \) m in one of its corners. The remainder of the garden consists of lawn and has dimensions as shown. If the total area of the lawn is 50 m\(^2\):
   a) form an equation in terms of \( x \),
   b) solve the equation,
   c) calculate the length and width of the whole garden.

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