MA90 Exercises for section 9.1   More Quadratic Equations

Short Answer

1. Solve the equation.

    $a^2 = 81$

    $a =$ _____

    .

2. Solve the equation.

    $y^2 = 98$

    .

3. Solve the equation.

    $3a^2 = 294$

    .

4. Solve the equation.

    $(x - 3)^2 = 36$

    $x =$ _____

    .

5. Solve the equation.

    $\left(9y - 1\right)^2 = 192$

    .

6. Solve the equation.

$$(5x - 25)^2 = 125$$

.

7. Solve the equation.

$$\left(x - \frac{1}{5}\right)^2 = \frac{36}{25}$$

.

8. Solve the equation.

$$\left(x + \frac{1}{4}\right)^2 = \frac{11}{16}$$

.

9. Solve the equation.

$$\left(a - \frac{7}{9}\right)^2 = \frac{75}{81}$$

.

10. Solve the equation using the square root method.

    $x^2 + 16x + 64 = 13$

    .

11. The square of the sum of a number and 3 is 36. Find the number. (There are two solutions.)

    .

12. If you invest $484 in an account with interest rate r compounded annually, the amount of money A in the account after 2 years is given by the formula:

    $A = 484(1 + r)^2$

    Solve this formula for r.

MA90 Exercisses for section 9.1   More Quadratic Equations
Answer Section

SHORT ANSWER

1. ANS:
    $9, -9$

    PTS: 1
2. ANS:
    $7\sqrt{2}, -7\sqrt{2}$

    PTS: 1
3. ANS:
    $7\sqrt{2}, -7\sqrt{2}$

    PTS: 1
4. ANS:
    $9, -3$

    PTS: 1
5. ANS:
    $\dfrac{1+8\sqrt{3}}{9}, \dfrac{1-8\sqrt{3}}{9}$

    PTS: 1
6. ANS:
    $5+\sqrt{5}, 5-\sqrt{5}$

    PTS: 1
7. ANS:
    $\dfrac{7}{5}, -1$

    PTS: 1
8. ANS:
    $\dfrac{-1+\sqrt{11}}{4}, \dfrac{-1-\sqrt{11}}{4}$

    PTS: 1
9. ANS:
    $\dfrac{7+5\sqrt{3}}{9}, \dfrac{7-5\sqrt{3}}{9}$

    PTS: 1

1

10. ANS:
$$-8 - \sqrt{13}, -8 + \sqrt{13}$$

PTS: 1

11. ANS:
$$-9, 3$$

PTS: 1

12. ANS:
$$r = -1 + \frac{\sqrt{A}}{22}$$

PTS: 1