

SOLVE EQUATIONS BY FACTORING➤ **Solve**

1) $(y+4)(y+6) = 0$

2) $(a-5)(a-2) = 0$

3) $x(x-5) = 0$

4) $3z(2z+5) = 0$

5) $(2x+3)(x-7) = 0$

6) $(4a-1)(a+9) = 0$

7) $b^2 - 49 = 0$

8) $4z^2 - 1 = 0$

9) $x^2 + x - 6 = 0$

10) $y^2 + 4y - 5 = 0$

11) $2b^2 - 5b - 12 = 0$

12) $3a^2 - 12a = 0$

13) $b^2 - 4b = 32$

14) $2x^2 - 5x = 12$

15) $z(z-1) = 20$

16) $x(x-12) = -27$

17) $2b^2 - 6b = b - 3$

18) $(y+5)(y-7) = -20$

19) $(t-3)^2 = 1$

20) $(3-x)^2 + x^2 = 5$

21) $2x^3 + x^2 - 8x - 4 = 0$

APPLICATIONS

- 22)** The sum of a number and its square is 90. Find the number.
- 23)** The square of a number is 12 more than four times the number. Find the number.
- 24)** The sum of the squares of two consecutive positive integers is equal to 145. Find the two integers.
- 25)** The sum of the cube of a number and the product of the number and twelve is equal to seven times the square of the number. Find the number.
- 26)** The length of a rectangle is 5 in. more than twice the width. The area is 168 in^2 . Find the width and length of the rectangle.
- 27)** The height of a triangle is 4cm more than twice the length of the base. The area of the triangle is 24 cm^2 . Find the height of the triangle.