

# Latex Assignment7

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## 1 Ex 10.4.2

1. Find the roots of the following quadratic equations by factorisation:
  - (i)  $x^2 - 3x - 10 = 0$
  - (ii)  $2x^2 + x - 6 = 0$
  - (iii)  $\sqrt{2}x^2 + 7x + 5\sqrt{2} = 0$
  - (iv)  $2x^2 - x + \frac{1}{8} = 0$
  - (v)  $100x^2 - 20x + 1 = 0$
2. Solve the problems given in Example 1.
3. Find two numbers whose sum is 27 and product is 182.
4. Find two consecutive positive integers, sum of whose squares is 365.
5. The altitude of a right triangle is  $7cm$  less than its base. If the hypotenuse is  $13cm$ , find the other two sides.
6. A cottage industry produces a certain number of pottery articles in a day. It was observed on a particular day that the cost of production of each article (in rupees) was 3 more than twice the number of articles produced on that day. If the total cost of production on that day was Rs.90, find the number of articles produced and the cost of each article.