

Quadratic Equations Questions for Bank Exams

Quadratic equation is one of the most complex and tricky parts of Quantitative Aptitude in the <u>Bank PO</u> and clerk exams where candidates generally make silly mistakes if they do not focus during their bank exam preparation.

Stepwise Tips to practice a Quadratic Equation

- Firstly the candidate needs to note down twenty sums related to the quadratic equation on a page.
- Then ten sums are to be solved using basic formula.
- To solve these sums using a stopwatch will help in time management.
- The next step is to evaluate the time taken and analyse the performance.
- The remaining ten questions are to be solved next by applying the shortcut tricks.
- The time taken should be noted carefully.
- This will surely have a difference from the time taken while solving the first ten questions.
- Practice is the key to master this topic of the Quantitative Aptitude section.

Quadratic Equation Sample Questions for Bank Exams

Given below are a few sample questions which will help candidates understand the concept of quadratic equations even better and get habitual of solving such questions within a shorter time span.

Directions (Q1 – Q4): Solve the following quadratic equations and choose the correct answer from the options given below:

```
Q 1. Equation I: x^2 - 28x + 195 = 0
Equation II: y^2 - 30y + 216 = 0
```

- 1. x>y
- 2. y>x
- 3. x=y, or no relation
- 4. x≤y
- 5. x≥y

Answer: (3) x=y, or no relation

Solution:

Equation I:
$$x2 - 28x + 195 = 0$$

 $\Rightarrow x2 - 13x - 15x + 195 = 0$
 $\Rightarrow x (x-13) - 15 (x-13)$
 $\Rightarrow x = 13/15$
Equation II: $y2 - 30y + 216 = 0$
 $\Rightarrow y2 - 12y - 18y + 216 = 0$
 $\Rightarrow y (y-12) - 18 (y-12) = 0$
 $\Rightarrow y = 12/18$

Thus, no relation can be found between the x and y



Q 2. Equation I: $(y - 18)^2 = 0$

Equation II: $x^2 = 324$

- 1. x>y
- 2. y>x
- 3. x=y, or no relation
- 4. x≤y
- 5. x≥y

Answer: (4) x≤y

Solution:

Equation I: $(y - 18)^2 = 0$

- ⇒ Using the formula, $(y 18)^2 = y^2 + (18)^2 (2 \times 18 \times y)$
- \Rightarrow y2 + 324 36y = 0
- \Rightarrow y2 36y + 324 = 0
- \Rightarrow y2 18y 18y + 324 = 0
- \Rightarrow y (y-18) 18 (y-18) = 0
- \Rightarrow y = +18/ +18

Equation II: $x^2 = 324$

x = -18/ +18

Q 3. Equation I: $3x^2 + 20x + 33 = 0$

Equation II: $2y^2 - 13y + 21 = 0$

- 1. x>y
- 2. y>x
- 3. x=y, or no relation
- 4. x≤y
- 5. x≥y

Answer: (2) y>x

Solution:

Equation I: $3x^2 + 20x + 33 = 0$

$$3x^2 + 20x + 33 = 0$$

- $\Rightarrow 3x^2 + 9x + 11x + 33 = 0$
- \Rightarrow 3x (x+3) + 11 (x+3) = 0
- \Rightarrow x = -3/ -3.67

Equation II:

$$2y^2 - 13y + 21 = 0$$

$$\Rightarrow 2y^2 - 6y - 7y + 21 = 0$$

- \Rightarrow 2y (y-3) 7 (y-3)
- \Rightarrow y = 3/3.5

Q 4. Equation I: $p^2 - 27p + 180 = 0$

Equation II: $q^2 + 20q + 91 = 0$

- 1. p>q
- 2. q>p
- 3. p=q, or no relation
- 4. p≤q



5. p≥q

Answer: (1) p>q

Solution:

Equation I:
$$p^2 - 27p + 180 = 0$$

 $\Rightarrow p^2 - 15p - 12p + 180 = 0$
 $\Rightarrow p (p-15) - 12 (p-15) = 0$
 $\Rightarrow p = 12/15$

Equation II:
$$q^2 + 20q + 91 = 0$$

 $\Rightarrow q^2 + 13q + 7q + 91 = 0$
 $\Rightarrow q (q+13) + 7 (q+13) = 0$
 $\Rightarrow q = -13/-7$

Given below are a few other links which will help you prepare for the quantitative aptitude section and score more in the bank exams 2020:

| Data Interpretation for Bank Exams | Approximation and Simplification | Boat and Stream |
|------------------------------------|----------------------------------|-----------------|
| Problems on Age | Problems on Train | Number Series |