

Course: IBPS clerk Prelims

Subject: Simplification, Number Series, Quadratic Inequalities

Time:10 Minutes

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Directions (1-5): निम्नलिखित प्रश्नों में प्रश्नवाचक चिह्न (?) के स्थान पर क्या मान आना चाहिए-

Q1. $140\% \text{ of } 320 + 75\% \text{ of } 200 - \sqrt[3]{512} = 59 \times ?$

- (a) 4
- (b) 5
- (c) 16
- (d) 10
- (e) 18

L1Difficulty 3

QTags Simplification

QCreator AYUSH PANDEY

Q2. $? \times 7 + 337 = (5)^3 + 436$

- (a) 36
- (b) 44
- (c) 48
- (d) 45
- (e) 32

L1Difficulty 3

QTags Simplification

QCreator AYUSH PANDEY

Q3. $?^3 \times 4 + 84\% \text{ of } 1500 = (45)^2 + 239 \times 9$

- (a) 9
- (b) 12
- (c) 7
- (d) 8
- (e) 11

L1Difficulty 3

QTags Simplification

QCreator AYUSH PANDEY

Q4. $1432 + ? \times 4 = 32^2 + 568$

- (a) 40
- (b) 30

(c) 25

(d) 35

(e) 45

L1Difficulty 3

QTags Simplification

QCreator AYUSH PANDEY

$$Q5. ? \div 6 + (12)^2 - \sqrt{2304} = (14)^2$$

(a) 1100

(b) 400

(c) 600

(d) 900

(e) 1500

L1Difficulty 3

QTags Simplification

QCreator AYUSH PANDEY

Directions (6-10): दी गई संख्या श्रृंखला में लुप्त पद ज्ञात कीजिए-

$$Q6. 697, 701, ?, 753, 817, 917$$

(a) 719

(b) 727

(c) 717

(d) 729

(e) 737

L1Difficulty 3

QTags MISSING SERIES Quant

QCreator AYUSH PANDEY

$$Q7. 512, 345, 227, 182, ?, 159$$

(a) 150

(b) 162

(c) 172

(d) 160

(e) 156

L1Difficulty 3

QTags MISSING SERIES Quant

QCreator AYUSH PANDEY

$$Q8. ?, 120, 134, 160, 204, 272$$

(a) 112

(b) 104

(c) 106

(d) 114

(e) 100

L1Difficulty 3

QTags MISSING SERIES Quant

QCreator AYUSH PANDEY

Q9. 26, 36, 54, 80, 114, ?

(a) 146

(b) 133

(c) 201

(d) 134

(e) 156

L1Difficulty 3

QTags MISSING SERIES Quant

QCreator AYUSH PANDEY

Q10. 81, 86, 94, 111, 135, ?

(a) 172

(b) 176

(c) 192

(d) 182

(e) 186

L1Difficulty 3

QTags MISSING SERIES Quant

QCreator AYUSH PANDEY

Directions (11-15): इनमें से प्रत्येक प्रश्न में, दो समीकरण (I) और (II) दिए गए हैं। दोनों समीकरणों को हल करें और उत्तर दीजिए-

(a) यदि $x > y$

(b) यदि $x \geq y$

(c) यदि $x = y$ या x और y के बीच कोई संबंध स्थापित नहीं किया जा सकता है.

(d) यदि $y > x$

(e) यदि $y \geq x$

Q11. (i) $x^2 - 12x + 32 = 0$

(ii) $y^2 - 20y + 96 = 0$

L1Difficulty 3

QTags Quadratic Inequalities

QCreator AYUSH PANDEY

Q12. (i) $2x^2 - 3x - 20 = 0$
(ii) $2y^2 + 11y + 15 = 0$

L1Difficulty 3

QTags Quadratic Inequalities

QCreator AYUSH PANDEY

Q13. (i) $x^2 - x - 6 = 0$
(ii) $y^2 - 6y + 8 = 0$

L1Difficulty 3

QTags Quadratic Inequalities

QCreator AYUSH PANDEY

Q14. (i) $x^2 + 14x - 32 = 0$
(ii) $y^2 - y - 12 = 0$

L1Difficulty 3

QTags Quadratic Inequalities

QCreator AYUSH PANDEY

Q15. (i) $x^2 - 9x + 20 = 0$
(ii) $2y^2 - 12y + 18 = 0$

L1Difficulty 3

QTags Quadratic Inequalities

QCreator AYUSH PANDEY

Solutions

S1. Ans. (d)

$$\text{Sol. } \frac{140}{100} \times 320 + \frac{75}{100} \times 200 - 8 = 59 \times ?$$

$$59 \times ? = 448 + 150 - 8$$

$$? = \frac{590}{59}$$

$$? = 10$$

S2. Ans. (e)

$$\text{Sol. } ? \times 7 = 125 + 436 - 337$$

$$? = \frac{224}{7}$$

$$? = 32$$

S3. Ans. (a)

$$\text{Sol. } ?^3 \times 4 = 2025 + 2151 - 1260$$

$$?^3 = \frac{2916}{4}$$

$$?^3 = 729$$

$$? = 9$$

S4. Ans. (a)

$$\text{Sol. } ? \times 4 = 1024 + 568 - 1432$$

$$? = \frac{160}{4}$$

$$? = 40$$

S5. Ans. (c)

$$\text{Sol. } \frac{?}{6} = 196 + 48 - 144$$

$$? = 100 \times 6$$

$$? = 600$$

S6. Ans.(c)

$$\text{Sol. } 697 + 2^2 = 701$$

$$701 + 4^2 = 717$$

$$717 + 6^2 = 753$$

$$753 + 8^2 = 817$$

$$817 + 10^2 = 917$$

so, 717 is missing no.

S7. Ans.(b)

$$\text{Sol. } 512 - (13^2 - 2) = 345$$

$$345 - (11^2 - 3) = 227$$

$$227 - (7^2 - 4) = 182$$

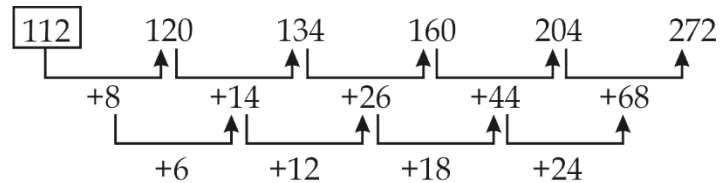
$$182 - (5^2 - 5) = 162$$

$$162 - (3^2 - 6) = 159$$

So, missing no. is 162

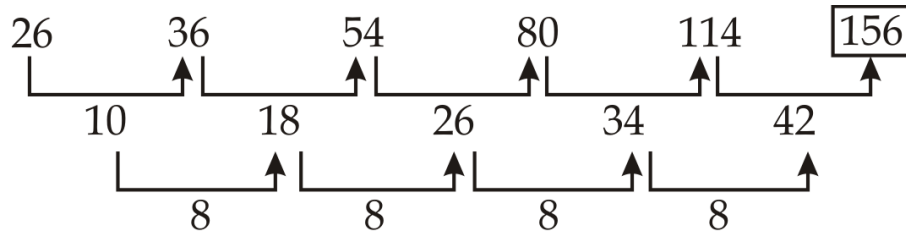
S8. Ans.(a)

Sol.



S9. Ans. (e)

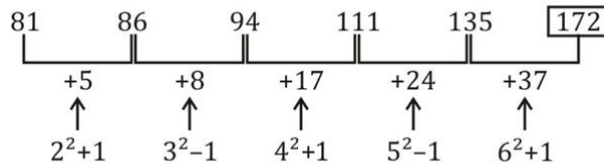
Sol.



S10. Ans.(a)

Sol.

Pattern is



S11. Ans.(e)

Sol.

$$(i) x^2 - 12x + 32 = 0$$

$$x^2 - 8x - 4x + 32 = 0$$

$$x(x - 8) - 4(x - 8) = 0$$

$$(x - 8)(x - 4) = 0$$

$$x = 8, 4$$

$$(ii) y^2 - 20y + 96 = 0$$

$$y^2 - 12y - 8y + 96 = 0$$

$$y(y - 12) - 8(y - 12) = 0$$

$$(y - 8)(y - 12) = 0$$

$$y = 8, 12$$

$$y \geq x$$

S12. Ans.(b)

Sol.

$$(i) 2x^2 - 3x - 20 = 0$$

$$2x^2 - 8x + 5x - 20 = 0$$

$$2x(x - 4) + 5(x - 4) = 0$$

$$(x - 4)(2x + 5) = 0$$

$$x = 4, -5/2$$

$$(ii) 2y^2 + 11y + 15 = 0$$

$$2y^2 + 6y + 5y + 15 = 0$$

$$2y(y + 3) + 5(y + 3) = 0$$

$$(2y + 5)(y + 3) = 0$$

$$y = \frac{-5}{2}, -3$$

$$x \geq y$$

S13. Ans.(c)

Sol.

$$(i) x^2 - x - 6 = 0$$

$$x^2 - 3x + 2x - 6 = 0$$

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

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

$$x = 3, -2$$

$$(ii) y^2 - 6y + 8 = 0$$

$$y^2 - 2y - 4y + 8 = 0$$

$$y(y - 2) - 4(y - 2) = 0$$

$$(y - 2)(y - 4) = 0$$

$$y = 2, 4$$

No relation can be established between x and y

S14. Ans.(c)

Sol.

$$(i) x^2 + 14x - 32 = 0$$

$$x^2 + 16x - 2x - 32 = 0$$

$$x(x + 16) - 2(x + 16) = 0$$

$$(x - 2)(x + 16) = 0$$

$$x = -16, 2$$

$$(ii) y^2 - y - 12 = 0$$

$$y^2 - 4y + 3y - 12 = 0$$

$$y(y - 4) + 3(y - 4) = 0$$

$$(y + 3)(y - 4) = 0$$

$$y = -3, 4$$

No relation

S15. Ans.(a)

Sol.

$$(i) x^2 - 9x + 20 = 0$$

$$x^2 - 5x - 4x + 20 = 0$$

$$x(x - 5) - 4(x - 5) = 0$$

$$(x - 4)(x - 5) = 0$$

$$x = 4, 5$$

$$(ii) 2y^2 - 12y + 18 = 0$$

$$2y^2 - 6y - 6y + 18 = 0$$

$$2y(y - 3) - 6(y - 3) = 0$$

$$(2y - 6)(y - 3) = 0$$

$$y = 3, 3$$

$$x > y$$