GRE 2024 Quant Practice Test 13 Question Paper

1. If you join all the vertices of a heptagon, how many quadrilaterals will you get?

(1) 72
(2) 36
(3) 25
(4) 35
(5) 120

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2. Four students have to be chosen: 2 girls as the captain and vice-captain and 2 boys as the captain and vice-captain of the school. There are 15 eligible girls and 12 eligible boys. In how many ways can they be chosen if Sunita is sure to be the captain?

(1) 114
(2) 1020
(3) 360
(4) 1848
(5) 1500

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3. A teacher prepares a test with 5 objective questions, of which 4 have to be answered. The first 2 questions each have 3 choices and the last 3 each have 4 choices. Find the total number of ways to answer the paper.

(1) 255
(2) 816
(3) 192
(4) 100
(5) 144

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4. How many 5-digit numbers are there with distinct digits?

(1) 144
(2) 27216
(3) 4386
(4) 6432
(5) 720

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5. In how many ways can 15 students be seated in a row such that the 2 most talkative children never sit together?

(1) $14! \cdot 14!$
(2) $15 \cdot 14!$
(3) $14!$
(4) $14! \cdot 13$
(5) $15!$

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6. In a school, 5 colours are allotted to each house. If the flag of Tagore House has to be a sequence of three blocks of different colours, how many flags can they choose from?

(1) 9
(2) 27
(3) 60
(4) 20
(5) 15

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7. Find the number of words which can be formed by using the letters of the word EQUATION if each word has to start with a vowel.

(1) 40320
(2) 1260
(3) 1080
(4) 400
(5) 25200

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8. How many five-digit numbers can be formed using the digits 0, 2, 3, 4 and 5, when repetition is allowed, such that the number formed is divisible by 2 or 5 or both?

(1) 100
(2) 150
(3) 3125
(4) 1500
(5) 125

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9. A straight road runs from north to south. It has two turnings towards east and three turnings towards west. In how many ways can a person coming from east get on the road and go west?

(1) 2
(2) 3
(3) 9
(4) 6
(5) 5

10. How many heptagons can be drawn by joining the vertices of a polygon with 10 sides?

(1) 562
(2) 120
(3) 105
(4) 400
(5) 282

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11. Four persons enter the lift of a seven-storey building at the ground floor. In how many ways can they get out of the lift on any floor other than the ground floor?

(1) 720
(2) 1296
(3) 1663
(4) 360
(5) 2500

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12. Ten different letters of an alphabet are given. 2 of these letters followed by 2 digits are used to number the products of a company. In how many ways can the products be numbered?

(1) 52040
(2) 8100
(3) 5040
(4) 1000
(5) 4000

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13. If $P(2n+1, n-1) : P(2n-1, n) = 3 : 5$, find n.

(1) 2
(2) 4
(3) 6
(4) 8
(5) 10

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14. A polygon has 20 diagonals. How many sides does it have?

(1) 12
(2) 11
(3) 10
(4) 9
(5) 8

15. A box contains 5 red and 4 blue balls. In how many ways can 4 balls be chosen such that there are at most 3 balls of each colour?

(1) 132
(2) 242
(3) 60
(4) 120
(5) 240

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16. Six points lie on a circle. How many quadrilaterals can be drawn joining these points?

(1) 72
(2) 36
(3) 25
(4) 15
(5) 120

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17. There are 3 children of a lady. In how many ways is it possible to dress them for a party if the first child likes 3 dresses, the second likes 4, and the third likes 5 but has outgrown one of them? Each child has a different set of clothes.

(1) 11
(2) 10
(3) 60
(4) 48
(5) 15

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18. How many three-digit odd numbers can be formed from the digits 1, 3, 5, 0 and 8?

(1) 25
(2) 60
(3) 75
(4) 100
(5) 15

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19. Find the number of words formed by permuting all the letters of the word INDEPENDENCE.

(1) 144
(2) 1663200
(3) 136050
(4) 6432

(5) 720

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20. There are 12 children in a party. For a game they have to be paired up. How many different pairs can be made for the game?

(1) 46
(2) 24
(3) 120
(4) 66
(5) 132

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21. How many different differences can be obtained by taking only 2 numbers at a time from 3, 5, 2, 10 and 15?

(1) 49
(2) 1898
(3) 1440
(4) 4320
(5) 720

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22. In a class test there are 5 questions. One question has been taken from each of the 4 chapters. The first two chapters have 3 questions each and the last two chapters have 6 questions each. The fifth question can be picked from any of the chapters. How many different question papers could have been prepared?

(1) 540
(2) 1260
(3) 1080
(4) 400
(5) 4860

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23. How many five-digit numbers can be formed using the digits 0, 2, 3, 4 and 5, when repetition is allowed, such that the number formed is divisible by 2 and 5?

(1) 100
(2) 150
(3) 3125
(4) 500
(5) 125

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24. In how many ways can five rings be worn in 3 fingers?

(1) 81
(2) 625
(3) 15
(4) 243
(5) 125

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25. How many pentagons can be drawn by joining the vertices of a polygon with 10 sides?

(1) 562
(2) 252
(3) 105
(4) 400
(5) 282

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26. Find the number of words formed by permuting all the letters of the word INDEPENDENCE such that the E's do not come together.

(1) 24300
(2) 1632960
(3) 1663200
(4) 30240
(5) 12530

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27. Ten different letters of an alphabet are given. Words with 6 letters are formed with these alphabets. How many such words can be formed when repetition is not allowed in any word?

(1) 52040
(2) 21624
(3) 182340
(4) 151200
(5) 600000

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28. If $P(2n+1, n-1) : P(2n-1, n) = 3 : 5$, find n.

(1) 2
(2) 4
(3) 6
(4) 8
(5) 10

29. A polygon has 20 diagonals. How many sides does it have?

(1) 12
(2) 11
(3) 10
(4) 9
(5) 8

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30. A box contains 5 red and 4 blue balls. In how many ways can 4 balls be chosen such that there are at most 3 balls of each colour?

(1) 132
(2) 242
(3) 60
(4) 120
(5) 240
