Graph Exercise Part I

- **วิชชาภัทร จินดานาถ** previously submitted answers to this quiz/test on 29-Oct-2023 @ 05:09:57 and obtained **15** correct answers out of **15** .
- This test/quiz can be taken many times.
- Correct answers will NOT be revealed after submission.

The exercises in this module are still under revision.

In the meanwhile, feel free to watch the video contents in the learning path of this module.

1 Find the number of edges of K_{10}

40 From previous attempt

45

50

55

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2 Find the number of edges of Q_5

12 From previous attempt

32

80

160

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3 Find the number of maximum edges of a bipartite graph with 30 vertices.

30

135

225

435

From previous attempt

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4 Determine whether the following sentences are true or false respectively.

1. Adjency matrix is always symmetric.
2. Sum of each row in the adjacency matrix is equal to number of edges incident to that vertex.

From previous attempt

True, True

True, False

False, True

False, False

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5 Determine whether the following sentences are true or false respectively.

1. The total degree of K_{100} is 9900.
2. Every simple graph with 31 vertices and 431 edges is a conected graph.

From previous attempt

True, True

True, False

False, True

False, False

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6 What is the maximum number of edges that can be removed from W_{10} and keep the graph connected?

From previous attempt

9

10

11

12

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7 Let G be a connected simple graph with 100 edges.

What is the minimum and maximum number of vertices that G can have?

From previous attempt

15, 101

15, 100

14, 101

14, 100

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8 Find the number of paths with length 4 of a pair of vertices in K_5.

From previous attempt

50

51

99

100

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9 If the number of subgraphs of $K_{6,6}$ that are isomorphic with Q_3 is $\binom{6}{n}\binom{6}{n}m!$.

From previous attempt

Find n.

1

3

4

6

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10 If the number of subgraphs of $K_{6,6}$ that are isomorphic with Q_3 is $\binom{6}{n}\binom{6}{n}m!$. From previous attempt

Find m.

2

4

6

8

---

11 Find the length of the longest simple path in K_6.

6 From previous attempt

12

13

15

---

12 Find the length of the longest simple path in C_7.

4 From previous attempt

5

6

7

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13 Find the length of the longest simple path in Q_7.

259 From previous attempt

322

385

448

14 Find the length of the longest simple path in W_8.

8

9

10

13

From previous attempt

15 Find the length of the longest simple path in $K_{5,5}$.

10

11

20

21

From previous attempt

Submit

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