Semester 2 Preparation

IT25101273

01.3,6,12,48,96

02.A,C,F,J,O,U

03.2,4,8,16,32,64,128

04.1,4,9,16,25,36,49

05.a)29,37

b) . Add 1, then 2, then 3, then 4

06)4,8,10,12 /n(n+1)

07)a)32

b)2^n-1

08)20

09)a)1024

b)2^n layer

10)6

11) DOG, DGO, ODG, OGD, GDO, GOD(Total =6)

12)24

13)a)20

b)210

14)a) A-C and B-D

b)6line

15)10round

16)a)5040

b)10000

17)a)15

b) Try to visualize or reason it out.

18)6Cadles

19) (A-B-C-A and D-E-F-D)

20)Orange

21) Doors **1, 4, 9, 16, 25, 36, 49, 64, 81,and100**

22)

23)10

24)21minutes

25)a)5ways

b)13

26)18

27)

28)a)0

b)14and42

29)a)200

b)225

c) A radius represents a physical distance; a "negative" radius has no physical meaning

30)a)58.57

b) Because these are two non-parallel linear equations, they intersect at exactly one point (P, S) in a 2D pnale

31)a)1220

b)98.57

32)a)3.5

b)30km

c) Since represents a portion of the trip, it cannot be negative (). It also cannot exceed the total distance of the trip (), otherwise the cyclist would have traveled more than km in the first leg alone.

33)a)1200n=15000+400n

c)18.75units

b) In a practical business setting, you usually cannot sell "0.75" of a product unit. Therefore, the business must sell at least **19 units** to actually cover all costs and move into profit.

34)a)48

b)13.86cm

c) Height is a physical measurement of distance. A height of zero would mean the triangle has no dimension (it would just be a line), and a negative height is physically impossible in Euclidean geometry.

35)a)84

b)Width:6m , Length:17m

c) In the physical world, a measurement of distance or size cannot be negative. You can't have a "negative meter" piece of land.

36)a)5p +3n =540

3p +6n =660

b) pen:60,Notebook:80.

c) Price represents a cost to a consumer; a negative price would mean the shop is paying you to take the items, which doesn't happen in a standard retail transaction.

37)a)100

b)100 – 4x=0

c) **Dimensions: 25 m *50m**.

d) A side of would result in an area of (no pen exists), and a negative length has no physical reality.

38) f(x) = 4x^2 – 3x -5

39)5.68

40) 7.18