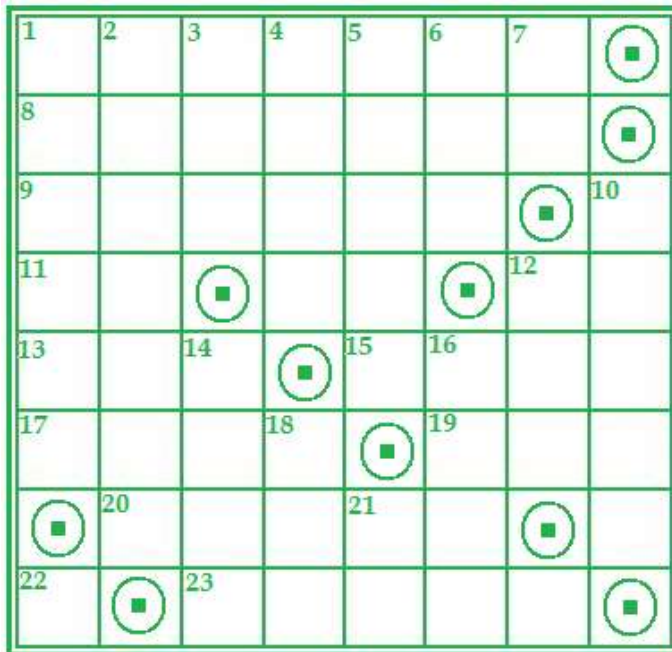


Solutions & Winners

Re-printing the crossword, can you find the word, question gallery and salutation to your solution questions (July 2011 issue) along with answers for your convenience.

Cross Word for kids



Across : 1. Branch of knowledge requiring systematic study and method. (7)

8. Not familiar with, not certain. (7)

9. Name of a city in Karnataka, not your sore. (6)

11. State abbreviation for Montana. (2)

12. Abbreviation of casual leave, which is in 'Clone' and 'Class' also. (2)

13. Owed, payable immediately. Right to left. (3)

15. Feeling of expectation and desire. (4)

17. Underground part of a tree. (4)

19. Not cooked, not yet processed or manufactured. Characters jumbled. (3)

20. A curved, closed outline. (5)

22. How do you pronounce 'sea', 'see'. (1)

23. Short form of a mammal with one horn or two horns on its nose. (5)

Down : 1. A season during which kids get lots of holidays. (6)

2. India, China, Canada - Each one of them is a ----- . Characters jumbled. (7)

3. Winter sport. Bottom to top. (3)

4. A 3D geometrical shape stood on its vertex. (4)

5. A direction. (5)

6. First initials of Center, West and East. (3)

7. Abbreviation of North-East written from South to North. (2)

10. Free from dirt or impurities. (5)

12. Abbreviation of Cardiopulmonary Resuscitation. (3)

14. Hinged, sliding or revolving barrier in the opening to enter or exit a house. (4)

16. Not up, but ---- . Characters jumbled. (4)

18. A small shelter. Written from down to top. (3)

21. Not out, but -- . Witten in upward direction. (2)

Can you find the word?

1. This is a 10 character word and it means a great relation.

2. First 6 characters form a person with whom you love to share. It is also second part of 'Sanghamitra'.

3. Last 4 characters in sequence form a word which is a transport mode on ocean.

4. 4th, 5th and 6th characters in sequence form a word which means concluding.

5. 8th, 9th and 10th characters form a word which is a part in human body. What is the word?

Kids' 'X' Word Solution

¹ S	² C	³ I	⁴ E	⁵ N	⁶ C	⁷ E	⊠
⁸ U	N	K	N	O	W	N	⊠
⁹ M	Y	S	O	R	E	⊠	¹⁰ C
¹¹ M	T	⊠	C	T	⊠	¹² C	L
¹³ E	U	¹⁴ D	⊠	¹⁵ H	¹⁶ O	P	E
¹⁷ R	O	O	¹⁸ T	⊠	¹⁹ W	R	A
⊠	²⁰ R	O	U	²¹ N	D	⊠	R
²² C	⊠	²³ R	H	I	N	O	⊠

Kids Challenge!

Did you find the word?
It is "FRIENDSHIP".

Smart kids :

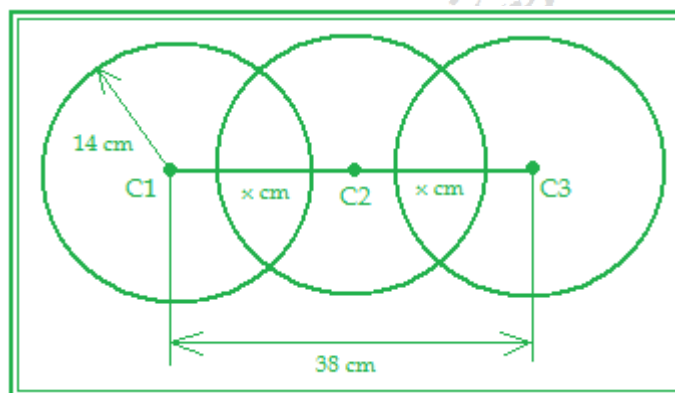
1. Sravya Ainapurapu, St. Louis.
2. Sruthi Ainapurapu, St. Louis.

Kids' 'X'word Winners:

1. D. Aditya, Lucknow.

Salutation to your solution!

1. There are 5 cities A, B, C, D and O. Each city is connected to the other four cities by highways in a shortest path. A is equidistant from B and C. Similarly D is also equidistant from B and C. Cities A and D are on either side of hwy BC. O is the intersection point of AD and BC. If $AB=AC=50$; $BO=40$; $BD=CD=85$, what is the distance between A and D?
2. As shown in figure below three identical circles are intersecting each other. Radius of each circle is 14 cm. The distance between the centers of first and third circle is 38 cm. Find the value of 'x'?



3. A 1000m lengthy train is passing a tunnel of length 1250m. If the train is going at a constant speed of 54 km/h, how long will it take to pass the tunnel?
4. A tent is placed for a circus in such a way that 4 cables from the top are tied at 4 different points on the ground forming a square with side $120\sqrt{2}$ meters. Each cable length from top to the ground is 125 meters? What is the vertical height of the tent?
5. What is the next three number in the following sequence?
0, 7, 26, 63, 124, ..., ..., ..., ...

Salutation to your solution! - Answers

1) 105 miles.

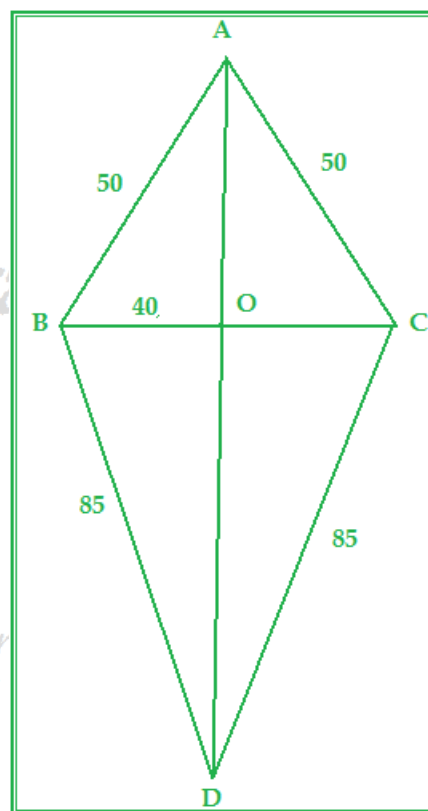
ABC is an isosceles triangle, in which $AB = AC = 50$,
 So O divides BC into 2 equal parts and AO is
 perpendicular to BC. Similarly BCD is also an
 isosceles triangle, in which $BD = CD = 85$, so O
 divides BC into two equal parts and DO is
 perpendicular to BC. Now in right angled triangles
 ABO and BDO,

$$AO^2 = AB^2 - BO^2 = 50^2 - 40^2 = 30^2 \rightarrow AO = 30 \text{ and}$$

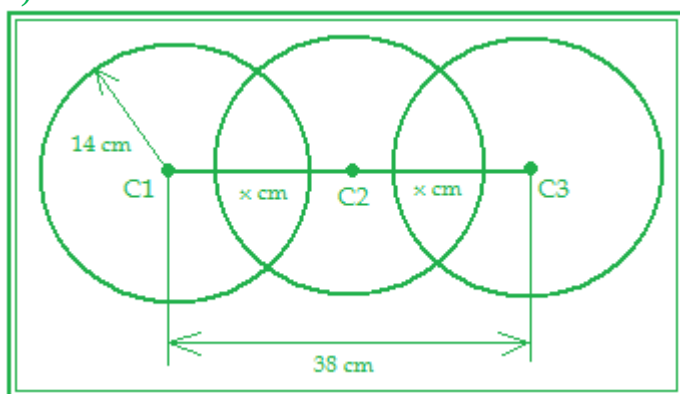
$$DO^2 = BD^2 - BO^2 = 85^2 - 40^2 = 75^2 \rightarrow DO = 75$$

$$\text{So } AD = AO + DO = 30 + 75 = 105 \text{ miles.}$$

Figure for question 1 →



2) 9cm

Distance between $C1$ and $C3 = 38$ cm.

Radius of each circle = 14 cm.

Distance between first and third circle is $38 - \text{one diameter} = 38 - 28 = 10$ cm.Diameter of middle circle = $x + x + 10 = 28$

$$\Rightarrow 2x + 10 = 28$$

$$\Rightarrow 2x = 18$$

$$\Rightarrow x = 9 \text{ cm.}$$

3) 2 minutes 30 seconds.

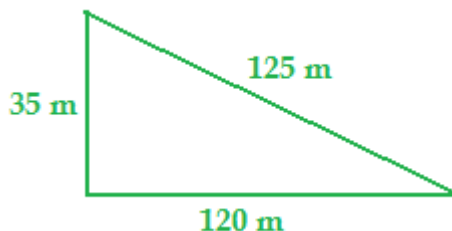
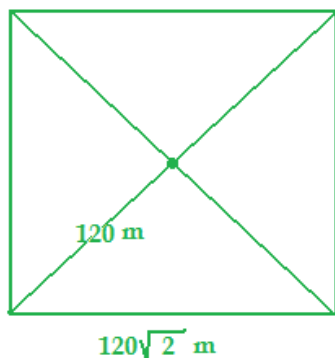
Tunnel length is 1250 m.

Train length is 1000 m.

To completely pass the tunnel, it should travel $1250 + 1000 = 2250$ m.Train speed is $54 \text{ km/h} = 54 \times (5/18) = 15 \text{ m/sec.}$ Total time required to pass the tunnel = $2250/15 = 150$ seconds = 2 minutes 30 seconds.

4) 35 m.

It is very interesting question. We need to visualize the tent. The base being a square with side $120\sqrt{2}$ m. So the center of square to any one of the vertex is 120 m as shown in next page. Now if we consider the rope, the distance from center to vertex and actual height of tent – they form a right angled triangle as shown in next page. Using Pythagorean theorem, the actual height of tent is $\sqrt{(125^2 - 120^2)} = \sqrt{1225} = 35$ m.



5) 215, 342, 511.

Salutation to your solution! - Winners:

1. T. Anoop, East Godavari, India.
2. Vaasanti Maghapu, California.

Question Gallery

1. Which country is called '**Land of thousand lakes**'?
2. Who wrote '**Crescent Moon**'?
3. What is the difference between **Speed** and **Velocity**?
4. What is the significance of '**Valency**' in atomic bonding?
5. What is the capital of '**Sweden**'?
6. How many bones are there in the human foot?
7. How many degrees of Celsius is equal to 77° of Fahrenheit?
8. What is the symbol of element having 26 electrons?
9. In which area '**Gopi Chand Narang**' is known for?
10. What is the word '**Humerus**' related to?

Question Gallery! - We ourselves disclosing answers!!

1. Finland is called '**Land of thousand lakes**'.
2. Rabindranath Tagore wrote '**Crescent Moon**'.
3. Velocity consists of direction where as speed does not specify direction (consists of only magnitude).
4. If an atom participates in ionic bonding, the valency tells the charge on the ion formed. If the atom participates in covalent bonding, the valency tells the number of electrons the atom shares with its partner atom(s).
5. The capital of Sweden is Stockholm.
6. The human foot consists of 26 bones.
7. 25 degrees Centigrade is equal to 77 Fahrenheit.
8. An element having 26 electrons is Ferrous with symbol **Fe**.
9. Gopi Chand Narang is an Indian scholar of Urdu language and literature, an eminent Urdu writer, scholar, critic and linguist. He was awarded Padma Bhushan in 2004.
10. Upper arm bone that runs from shoulder to elbow is called Humerus.

Question Gallery! - Winners : 1. Vaasanti Maghapu, California.

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