

## Christmas Puzzles

1. Santa sent his reindeers, Prancer, Dancer, Comet, Vixen, and Rudolph, each to a different city, each with a sleigh of a different color, to bring various gifts to good children. Comet was sent to Chicago, while another reindeer was sent to Detroit. Vixen was sent to El Paso. The yellow sleigh went with Dancer, and but another reindeer was sent to Atlanta. The blue sleigh did not went with Prancer. The red sleigh went with Rudolph, the red-nosed reindeer. The green sleigh go the Boston, while the orange sleigh went to another city with one of those reindeers. The blue sleigh did not go to Chicago. Which city did each reindeer visit? What was the color of the sleigh that went with each reindeer?
2. During a Christmas Party, Santa gave away several stuffed animals for the children. Alice, Ben, Carol, David and Edith each receive three of the following stuffed animals: Bunny, Cat, Puppy, Bear, or Deer. The only animal Alice and Ben have in common is a bunny. The only animal Ben and Carol have in common is a cat. The only animal Carol and David have in common is a puppy. Ben did not receive a bear. Name the stuffed animals that Alice, Ben, Carol, David and Edith each received.
3. Three wise kings set forth from their hometowns to the town of Bethlehem bringing their gifts to the Holy Infant Jesus during the first Christmas. They all started traveling at the same time. The first wise king traveled south at 3 miles per hour. The second wise king traveled west at 2.2 miles per hour. The third wise king traveled north at 3.5 miles per hour. After they traveled 8 hours, they met at one place east of Bethlehem. When they had rested for a few hours, they traveled west together for 18 miles until they reached the town of Bethlehem, and paid homage to the Holy Infant Jesus. What were the distances from Bethlehem to these three hometowns of the wise kings? Take note that the routes taken by these kings may not be necessarily the shortest path to Bethlehem.
4. Christmas Eve is near, and most of Santa's elves were on vacation except for 4 elves. These 4 elves were helping Santa make toys for Christmas. The Blue Elf can make 500 toys in one hour. The Red Elf can make 800 toys in two hours. The Green Elf can make 300 toys in half an hour. The Yellow Elf can make 750 toys in one hour. If there were still 12,000 toys left to make for Christmas, in how many hours can these toys be completed by these 4 elves working together?
5. In a open field, there are 5 christmas trees decorated with colors. The red christmas tree and the orange christmas tree are 10 yards apart. The yellow christmas tree is 12 yards from the red christmas tree. The blue christmas tree is 14 yards from the orange tree. The pink christmas tree is 17 yards from the blue christmas tree. The yellow christmas tree and the orange christmas tree are 9 yards apart. The yellow christmas tree and the pink christmas tree are 13 yards apart. The pink christmas tree and the orange christmas tree are 11 yards apart. How far is is blue christmas tree from the red christmas tree (rounded to the nearest yard)?
6. Solve the following cryptarithm, by substituting each letter with a numeral:

$$\begin{array}{r} \text{B E S T} \\ + \text{G I F T} \\ \hline \text{L O V E} \end{array}$$

7. The word game DOUBLET was invented by Lewis Carroll, author of *Alice in Wonderland*. The object of the game is to change a word into another word by successively changing only one letter at the time to form an intermediate valid word. Change the word GIFT to LOVE.
8. The park has five Christmas trees. At the top of each tree is decorated with a star. Each star is of different color which include blue, yellow, orange, red, and purple. Each tree is decorated with lights of three different colors. Three trees have been decorated with blue lights. Three trees have been decorated with yellow lights. Three trees have been decorated with orange lights. Three trees have been decorated with red lights. Three trees have been decorated with purple lights. None of the trees were decorated with lights with color similar to that of its respective star. The tree with yellow star is not decorated with red lights. The tree with purple star is not decorated with orange lights. The tree with red star is not decorated with purple lights. What are the color of the Christmas lights decorated on each tree.
9. In Christmas Fantasy Land, each child has several gifts. The gifts are wrapped with wrappers of different colors. The color of the wrapper represents the value of the gift. The children can exchange gifts with each other, either singly or in a group, as long as the values of the gifts exchanged remains the same.

THESE GIFTS CAN	EXCHANGE FOR
	
	
	
<b>YOU HAVE</b>	
	???

If you have a gift in a green wrapper, how many gifts in yellow wrapper can you exchange for?

10. A magic word square is a square array of letters such a valid word is found in every row and every column of the array. Inspired by the STAR on your Christmas tree, form a magic word square given the following letters in the array:

<b>S</b>	<b>T</b>	<b>A</b>	<b>R</b>