

## Christimas Buthp

Need: 3 dice and 10 counters per player - each player uses a different color To Play: Players take turns to roll the 3 dice and add the numbers together. Then they cover this number with one of their counters, covering the large number. If another player has covered that number, they can 'bump' that counter off and put one of their own counters on it. If that number is covered by one of the player's own counters, they can add another counter on top and then they have won that space. You can only 'bump' when there is only one counter on the number. The winner of the game is the first player to use all 10 of their counters.




Christinas
$\because$ Four In A Row Add 10 a game for 2 players a game for 2 players <br> \section*{Four In A Row Multiples <br> \section*{Four In A Row Multiples <br> <br> Christmas} <br> <br> Christmas}

32 54 20 50 25 40

15
22

36 | 16 | 27 |
| :--- | :--- |
| 32 | 60 |

28
42
30
$21 \quad 32$ -

Cards and Instructions for Christmas Four In A Row Games
Christmas Four In A Row Add 10
a game for 2 players Need: 2 dice, candy tokens (or counters)
Each player uses a different colored candy token. Players take turns to roll 2 dice, add the numbers together and then add 10 to the total. The player then covers this number on the board, e.g. if you roll 6 and 3 , this adds to 9 so you cover 19. If the number isn't available you don't cover a number on that turn. The first player to create I a line of 4 of their candies - vertically, horizontally or diagonally - is the winner.


Multiples
a game for 2 players Need: 2 dice, candy tokens (or counters)
I Each player uses a different colored candy token. Players take turns to roll 2 dice, , add the numbers and cover any number on the board that is a multiple of this I number, e.g. if you roll 6 and 3, this adds to 9 so you can cover 18, 27, 36, 45 or 54. I If the number isn't available you don't cover a number on that turn. The first player , to create a line of 4 of their candies - vertically, horizontally or diagonally - is the winner.




Christmas Math Puzzles

| Find Four Set $A$ |  |
| :---: | :---: |
|  |  |
| (a. 12 | $\begin{array}{\|c\|} \hline 1 \\ \hline 2 \\ \hline \\ \hline \\ \hline \end{array}$ |
| 6. 14 |  |
| c. 16 |  |
| d. 15 |  |
| e. 17 |  |
| f. 19 |  |
| g. 20 |  |




## Three Gifts



I have to wrap 3 gifts. I have red, green, yellow and blue paper.
How many different combinations of colors can I use to wrap the 3 gifts? Color the gifts below to show the different combinations that I could use. You can use a color more than once but don't use the same colors in a different order.
To help you start the first 2 sets have the colors suggested with the first letter of the color.

| $R$ | $G$ | $Y$ | $R$ | $R$ | $R$ |
| :--- | :--- | :--- | :--- | :--- | :--- |



For solution see page 38.

# 12 Days of Christmas - Add to 12 

I can add to 12. Find adjoining pairs of numbers that add to 12 . Circle each pair. Each pair must be side by side or one above the other.

| 4 | 4 | 6 | 8 | 7 | 2 | 6 | 1 | 11 | 1 | 4 | 5 | 10 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 3 | 8 | 1 | 11 | 5 | 10 | 6 | 3 | 6 | 11 | 8 | 4 | 8 |
| 2 | 10 | 6 | 6 | 4 | 8 | 4 | 2 | 10 | 2 | 9 | 3 | 1 |
| 3 | 3 | 1 | 11 | 8 | 9 | 3 | 10 | 4 | 5 | 6 | 7 | 11 |
| 5 | 9 | 7 | 1 | 3 | 7 | 5 | 2 | 8 | 4 | 8 | 5 | 8 |
| 5 | 7 | 5 | 9 | 3 | 3 | 9 | 1 | 11 | 4 | 7 | 5 | 10 |
| 9 | 2 | 7 | 5 | 9 | 4 | 3 | 8 | 4 | 6 | 6 | 7 | 2 |

## Play the 12 Days of Christimas Game With a Friend



Twelve Drummers Drumming...

On a new copy of this sheet - take turns to circle a pair that adds to 12. The last player who can circle a pair is the winner.

## Merry Christmas

Each letter has a value.
Work out the answer for each fact. Write the letter for the answer below it and you will make 3 words. Answer the question using one of these words.

| $M$ | $e$ | $r$ | $r$ | $x$ | $C$ | $h$ | $r$ | $i$ | $s$ | $t$ | $m$ | $a$ | $s$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 1 | 2 | 3 | 3 | 4 | 5 | 6 | 3 | 7 | 8 | 9 | 1 | 10 | 8 |


| 4 | 2 | 1 | 3 | 3 | 3 | 4 | 2 | 1 | 5 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| +1 | +8 | +2 | +1 | 7 | +2 | +2 | +7 |  | +5 | +5 |

Which of these would you like to receive as a gift? A toy


| 5 | 1 | 9 | 2 | 5 | 4 | 7 | 3 | 5 | 1 | 2 | 1 |
| ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| +1 | +1 | $\pm 1$ | $\pm 1$ | $\pm 4$ | $\underline{+2}$ | $\underline{+3}$ | $\underline{+6}$ | $\underline{+3}$ | $\underline{+8}$ | $\underline{+8}$ | $\underline{+2}$ |

Which of these would you like to have on top of the Christmas tree? $\qquad$
For solution see page 26.

# Merry Christmas Solutions 

Each letter has a value.
Work out the answer for each fact. Write the letter for the answer below it and you will make 3 words. Answer the question using one of these words.



| 4 | 2 | 1 | 3 | 3 | 3 | 4 | 2 | 1 | 5 | 4 |
| ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| $\pm 1$ | $\pm 8$ | $\underline{+2}$ | $\underline{+1}$ | $\pm 7$ | $\underline{+2}$ | $\pm 2$ | $\underline{+7}$ | $\pm 4$ | $\pm 5$ | +5 |
| 5 | 10 | 3 | 4 | 10 | 5 | 6 | 9 | 5 | 10 | 9 |

c $\underline{a} \underline{y} \underline{y} \underline{c} \underline{h} \underline{t} \underline{c} \underline{a}$
Which of these would you like to receive as a gift? A toy


Which of these would you like to eat on Christmas day?

| 5 | 1 | 9 | 2 | 5 | 4 | 7 | 3 | 5 | 1 | 2 | 1 |
| ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| $\underline{+1}$ | $\underline{+1}$ | $\underline{+1}$ | $\underline{+1}$ | $\frac{+4}{9}$ | $\underline{+2}$ | $\underline{+3}$ | $\underline{+6}$ | $\underline{+3}$ | $\underline{+8}$ | $\underline{+8}$ | $\underline{+2}$ |
| 6 | 2 | 10 | 3 | 9 | 6 | 10 | 9 | 8 | 9 | 10 | 3 |
| $\underline{\mathrm{~h}}$ | $\underline{e}$ | $\underline{a}$ | $\underline{r}$ | $\underline{t}$ | $\underline{h}$ | $\underline{a}$ | $\underline{t}$ | $\underline{s}$ | $\underline{t}$ | $\underline{a}$ | $\underline{r}$ |

Which of these would you like to have on top of the Christmas tree?

## Four Gifts

Three crosses have been placed in this $3 \times 3$ grid so that there is only one cross in each row and each column.

|  | $\mathbf{x}$ |  |
| :--- | :--- | :--- |
| $\mathbf{x}$ |  |  |
|  |  | $\mathbf{x}$ |

Can you cut out the gifts below and glue the 4 gifts onto this $4 \times 4$ grid so each row, each column and each diagonal has only one gift?


For solution see page 38.

## Ten Ornaments

Cut out the 10 ornaments and glue them onto the grid below so that each row, each column and each diagonal has an even number of ornaments.


For solution see page 38.

## Christmas



## Brain

## Teasers

## Different Formats

Each Brain Teaser is presented in 2 different formats.
This allows the cards
to be used in three different ways.
Large Card size with 2 to a page.
Mini Card size with 6 to a page.
Worksheet - the mini cards with 6 to a page can also be used as a worksheet. Just print one for each student.





9. Uhcle Totr's Gifts
How many candy canes do 1 have?
I have more than 15 but less than 30 .
If 2 people share them evenly, there will be 1 left over.
If 3 people share them evenly, there will be 2 left over.
If 4 people share them evenly, there will be 3 left over.
12.
Tania is decorating her bedroom with Christmas decorations.
She is only going to use two different colored decorations.
and silver.
How many different color combinations could she 6 colors - red, green, pink, orange, blue
choose from? Example - red and green
Inem

## Christmas Brain Teasers A

1. Elves and Reindeer

The elves and reindeer are getting ready for a meeting with Santa. 14 of them have arrived. If they have 38 legs between them, how many reindeer are at the meeting and how many elves are at the meeting?


## 3. Christmas Cards

Four friends, Tom, Lisa, Braydon and Peta give each other Christmas Cards. If each one of them gives out a card to each of their friends, how many Christmas Cards are given out altogether?
How many cards would be given out if 7 friends each give each other Christmas cards?


## 5. <br> Decorations

Henry and Liza are decorating the Christmas tree. Henry took half of the decorations out of the box and put them on the tree. Liza took half of the remaining decorations and put them on the tree. Then there were 3 decorations left.
How many decorations were in the box to begin?

## 2. <br> Santa's Elves

Each elf can wrap 1 gift in one minute. How many gifts can 5 elves wrap in three minutes?


## 4. Gift Wrapping

Jenni and Marcus are wrapping Christmas gifts.
Jenni has wrapped 5 more than Marcus. Together they have wrapped 17 gifts.
How many gifts has Marcus wrapped?

## 6. <br> Snow Friends

The Snowmen and Snowwomen are comparing their heights. Frosty, Snow White, Jack Frost and Snow Flake are lining up in order from shortest to tallest. Frosty is not the tallest or the shortest. Snow White is taller than Jack Frost and Snow Flake. Jack Frost is shorter than Frosty. Jack Frost is not the shortest. In what order are they standing?

## Christmas Brain Teasers B

## 7. Santa's Favorite Number

Santa has a favorite number. It is larger than 18 and smaller than 37.

The sum of the digits is 7 .
It is an odd number.
What is Santa's favorite number?
9. Uncle Totn's Gifts

Uncle Tom has a gift for his nephews and niece. Steven, Tracy and Paul are getting a train, a bear and a kite. Steven isn't getting a bear or a train. Paul isn't getting a train.
What gift does Uncle Tom have for each?


## 11. Candy Canes

How many candy canes do I have? I have more than 15 but less than 30. If 2 people share them evenly, there will be 1 left over.
If 3 people share them evenly, there will be 2 left over.
If 4 people share them evenly, there will be 3 left over.

## 8. Christmas Gifts

Carla is getting 2 gifts from her brother Harry. She has asked for a teddy bear, ball, doll or book.
How many different combinations
could Harry give her, e.g. a ball and doll would be one combination?


## 10. <br> Busy Elves

The elves have made 18 gifts today. Some of them are teddy bears and some are trains.
If there are 2 teddies for every train, how many teddy bears have they made today?


## 12. Two Colors

Tania is decorating her bedroom with Christmas decorations. She is only going to use two different colored decorations.
She can choose from 6 colors - red, green, pink, orange, blue and silver. How many different color combinations could she choose from?
Example - red and green


## Christmas Math Puzzle Solutions

Find Four Set $A$
One possible solution is given for each
a. $12-1,2,3,6$
b. $14-1,2,5,6$
c. $16-1,3,5,7$
d. $15-2,3,4,6$
e. $17-2,3,4$, 8
f. $19-2,3,6,8$
g. $20-2,4,6,8$

Find Four Set $B$
One possible solution is given for each
a. $20-3,4,5$, 8
b. $23-3,5,7,8$
c. $28-4,7,8,9$
d. $29-5,7,8,9$
e. $34-5,7,9,13$
f. $37-7,8,9,13$
g. $43-7,8,13,15$

Four Gifts
One possible solution is given

## Ten Ornaments



One possible solution is given

## Three Gifts

20 possible combinations
RGY RRR RRB YYR BBG GGY
RBY GGG RRG YYG BBY GGB
RGB BBB RRY YYB BBR GGR GBY YYY

## Brain Teaser Solutions

## 1. Elves and Reindeer

9 elves and 5 reindeer
2. Santa's Elves

15 gifts
3. Christmas Cards

12 cards, 7 friends - 42 cards
4. Gift Wrapping

Marcus - 6 gifts

## 5. Decorations

12 Decorations
6. Show Friends

Snow Flake, Jack Frost, Frosty, Snow White

## 7. Santa's Favorite Number

25
8. Christmas Gifts

6 combinations
9. Uncle Totn's Gifts

Steven - kite, Tracy - train, Paul - bear
10. Busy Elves

12 Teddy bears
11. Candy Canes

23 candy canes
12. Two Colors

15 Color combinations

