## CRTME SCENE INVESTITATIUN

Yesterday a terrible thing happened - Santa's sleigh was stolen!
Santa needs your help to find out who stole his sleigh - he needs it back before Christmas. You must succeed or else there will be no Christmas this year.

The most likely suspects were gathered up and are shown below, one of these suspects committed the crime. Use the evidence on the following pages to find out which one.


## THE POLICE HAVE FOUND FOUR CLUES WHICH CAN BE SEEN ON THE FOLLOWING PAGES

AFTER YOU HAVE SOLVED EACH CLUE COME BACK HERE TO CROSS PEOPLE OFF THE SUSPECT LIST UNTIL YOU HAVE FOUND THE CRIMINAL

## HIDDEN MESSAGE

At the scene of the crime Santa found a note with a hidden math message.
Solve the problems, then fill in the message spaces with the letters that match the correct answers to read the secret message. This will let you cross off one person from the suspect list.

| $\underset{4 \times 5}{\underset{4}{A}}$ | B $3 \times 2$ | $\underset{\text { 7 }}{\text { C }}$ | $\underset{4 \times 3}{\mathrm{D}}$ | $\begin{gathered} \mathrm{E} \\ 5 \times 5 \end{gathered}$ | $\stackrel{\text { F }}{\text { 9x3 }}$ | $\underset{6 \times 4}{\text { G }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| H | 1 | J | K | L | M | N |
| 8×2 | 7x3 | 4×8 | 5×6 | 7X8 | 6x3 | 8×5 |
| 0 | P |  |  |  |  |  |
| 9X6 | 6x6 | 7X9 | 2X8 | 3x3 | 9x9 | 3×5 |
|  |  |  |  |  |  |  |
| 888 | 2×2 | X $6 \times 8$ | $\stackrel{Y}{9 \times 10}$ |  |  |  |
|  |  |  |  |  |  |  |

$\overline{9} \frac{-}{56} \frac{25}{25} \frac{32}{24} \frac{-}{21} \quad \frac{-}{20} \frac{-}{25} \frac{-}{25} \frac{12}{25} \frac{-}{12} \quad \frac{21}{81}$. $\overline{8} \frac{15}{12} \frac{54}{56} \frac{36}{36} \frac{16}{16} \overline{20} \frac{12}{40} \frac{54}{81} \frac{16}{16} \frac{\pi}{21} \frac{1}{40}$

$$
\overline{81} \frac{54}{54} \quad \overline{12} \frac{4}{54} \frac{\pi}{21} \frac{81}{81} \frac{16}{16} \quad \overline{21} \frac{81}{81} .
$$

CROSS THIS PERSON OFF YOUR SUSPECT LIST.

## MAGIC TO FLY

The sleigh requires magic to fly. Whoever stole the sleigh must have had enough magic power to get it flying. None of the suspects has any magic power within them - however they all have magic objects which could be used to make it fly. Each magic object has magic points and the sleigh requires at least 30 magic points to fly.

Cross off any suspect who has a total of less than 30 magic points off the suspect list.

| Magic lollipop <br> 1 magic point | Candy Cane <br> 2 magic points | Magic cookie <br> 3 magic points | Toy <br> 4 magic points | Magic coat <br> 5 magic points |
| :---: | :---: | :---: | :---: | :---: |

Hint: To calculate magic points multiply number of object by amount of magic points it has. e.g. Three candy canes $=3 \times 2=6$ magic points.

| Rudolph had: <br> 9 magic lollipops = $\qquad$ magic points <br> 5 magic cookies $=$ $\qquad$ magic points <br> 2 magic coats = $\qquad$ magic points <br> Total magic points $\qquad$ |
| :---: |
| Santa's Elf had: <br> 7 magic lollipops = $\qquad$ magic points <br> 2 candy cane <br> 3 magic coats $\qquad$ nagic <br> Total magic $p$ ints |
| Frosty had: <br> 8 candy canes $=$ $\qquad$ magn_poi <br> 4 magic cookies $=$ $\qquad$ magic points <br> 2 toys = $\qquad$ magic points <br> Total magic points $\qquad$ |
| Penguin Paul had: <br> 5 magic lollipops = $\qquad$ magic points <br> 3 magic cookies = $\qquad$ magic points <br> 2 toys = $\qquad$ magic points <br> 1 magic coat = $\qquad$ magic points <br> Total magic points $\qquad$ |


| Gingerbread Man had: |
| :---: |
| 5 candy canes = ___ magic points |
| 2 magic cookies = ___ magic poin |
| 4 toys = __ magic points |
| Total magic points |

Mrs Claws had:
1 magic cookie = $\qquad$ magic points


3 candy canes = $\qquad$ magic points

3 magic cookies = $\qquad$ magic points

Total magic points $\qquad$


Cross off any suspect who has less than 30 magic points off the suspect list.

## Fractions - Snommobile Fuel

All the residents of North Pole use snow mobiles to get around. Santa keeps his sleigh in a cave far away from the other residents of North Pole. The person who stole the sleigh would have used up a lot of petrol/gas in their snowmobile so any suspect with a lot of gas in their tank can be taken off the suspect list.

## CROSS THE SUSPECT OFF THE LIST WHO HAS THE MOST AMOUNT OF FUEL LEFT IN THEIR SNOWMOBILE.

| Rudolph | Gingerbread Man | Santa's Elf | Mrs Claws |
| :---: | :---: | :---: | :---: |
| $\begin{array}{ll} \frac{2}{4} & \text { Fuel left } \\ \text { in tank } \end{array}$ |  | $\frac{2}{3} \quad \begin{gathered}\text { Fuel left } \\ \text { in tank }\end{gathered}$ | $\frac{6}{10} \quad \begin{aligned} & \text { Fuel left } \\ & \text { in tank }\end{aligned}$ |
|  |  |  |  |
| Frosty <br> 7 9 $\begin{gathered}\text { Fuel left } \\ \text { in tank }\end{gathered}$ | Christmas Ghost 4 Fuel left 8 in tank | Penguin Paul <br> $\frac{7}{12}$ Fuel left <br> 12 in tank | Christmas Bear $\begin{array}{ll} \frac{3}{5} & \begin{array}{l} \text { Fuel left } \\ \text { in tank } \end{array} \end{array}$ |
|  |  |  |  |

Shade in the amount of fuel each suspect has left in their snowmobile. Cross off the suspect with the most amount of fuel left in their tank.

## BRIBE THE GUARD

The guard who looked after the sleigh vanished after the sleigh was stolen. It was found that the sleigh thief paid the guard a bribe to help them with the robbery. The sleigh thief must therefore have a lot of spare money. The two suspects with the least amount of money wouldn't have had enough to bribe the guard so can be crossed off the suspect list.

CROSS OFF THE TWO SUSPECTS WITH THE LEAST AMOUNT OF TOTAL MONEY

|  | Money in <br> Bank | Cash in <br> Wallet | Cash in <br> Piggy Bank | Total money |
| :---: | :---: | :---: | :---: | :---: |
| Rudolph | $\$ 110.50$ | $\$ 30$ | $\$ 47.20$ |  |
| Gingerbread <br> Man | $\$ 120.10$ | $\$ 25.75$ | $\$ 16.50$ |  |
| Santa's Elf. | $\$ 80.75$ | $\$ 7.20$ | $\$ 29.60$ |  |
| Mrs Claw | 9,80 | $\$ 103$ | $\$ 2.4$ |  |
| Frosty | $\$ 14.2$ | 64.75 | $\$ 7.54$ |  |
| Christmas <br> Ghost | $\$ 104.85$ | $\$ 28.20$ | $\$ 31.05$ |  |
| Penguin Paul | $\$ 173.65$ | $\$ 8.40$ | $\$ 13.80$ |  |
| Christmas <br> Bear | $\$ 65.40$ | $\$ 35.05$ | $\$ 12.40$ |  |

FIND THE TOTAL AMOUNT OF MONEY EACH SUSPECT HAS. CROSS THE TWO SUSPECTS WITH THE LEAST AMOUNT OF MONEY OFF THE SUSPECT LIST.

## SLEIGH ADVENTURE

Imagine you had Santa's sleigh for a day. Where would you go? What would you do? Write your adventure below.


