## Domino Printable



You can check that you have a full set of dominoes by placing your set on the grid, or cut these out to make a set to use at home.


Dr Paul Swan 2
More activities with dominoes can be found in the book Domino Deductions
ebook \& physical:
drpaulswan.com.au/shop


You can buy foam dominoes from the shop on my website
drpaulswan.com.au/shop

## Domino Blanks Template

- You will need a set of dominoes (standard double-6 set) or the domino cut outs.


This could be recorded as: $5 \& 2$ and $3 \& 0$

| $\frac{5}{2}$ | $\frac{3}{0}$ |
| :--- | :--- |



## Domino 21

Make the three dominoes sum to 21 .
Rules:

1. Always start with a double.
2. The connections between dominoes need to have the same number


## $5|5| 5|\quad|$



## Domino 21 Answers



| 6 | 6 | 6 | 0 | 0 | 3 |
| :--- | :--- | :--- | :--- | :--- | :--- |



| 5 | 5 | 5 | 0 | 6 |
| :--- | :--- | :--- | :--- | :--- |


| 5 | 5 | 5 | 1 | 1 | 4 |
| :--- | :--- | :--- | :--- | :--- | :--- |



| 5 | 5 | 5 | 3 | 3 | 0 |
| :--- | :--- | :--- | :--- | :--- | :--- |


| 4 | 4 | 4 | 2 | 2 | 5 |
| :--- | :--- | :--- | :--- | :--- | :--- |


| 4 | 4 | 4 | 3 | 3 | 3 |
| :--- | :--- | :--- | :--- | :--- | :--- |

Starting with a double 6, we have to join a 6 to connect to the next domino.

That means we have already accounted for 18 of our 21, leaving 3 left for the remaining dominoes.
We can either have $0,0,3$ or 1,1,1 1,2,0 and 2,0,1 fail the joining rule.

| 3 | 3 | 3 | 4 | 4 | 4 |
| :--- | :--- | :--- | :--- | :--- | :--- |


| 3 | 3 | 3 | 5 | 5 | 2 |
| :--- | :--- | :--- | :--- | :--- | :--- |


| 3 | 3 | 3 | 6 | 6 |
| :--- | :--- | :--- | :--- | :--- | 0


| 2 | 2 | 2 | 5 | 5 | 5 |
| :--- | :--- | :--- | :--- | :--- | :--- |



Discuss with your students if the turned around dominoes are the same answer or different.

## Domino 21 Reasoning:



We have already accounted for 18 of our 21, leaving 3 left for the remaining dominoes.
We can either have $0,0,3$ or $1,1,1$
1,2,0 and 2,0,1 fail the joining rule.

We start the 5's and 15 of or 21 is accounted for.

Our 4 would need to match with another 4, exceeding our total.


This one doesn't work, because the 5 would need to match with another 5 (for a minimum of 10) and this whole section only has 9 to play with.

Being systematic, we try $0,1,2,3 \ldots$ in these spots. 0, 1, 2 can't add up to 21 .

3 , 3 has already been used so that is not usable either.

