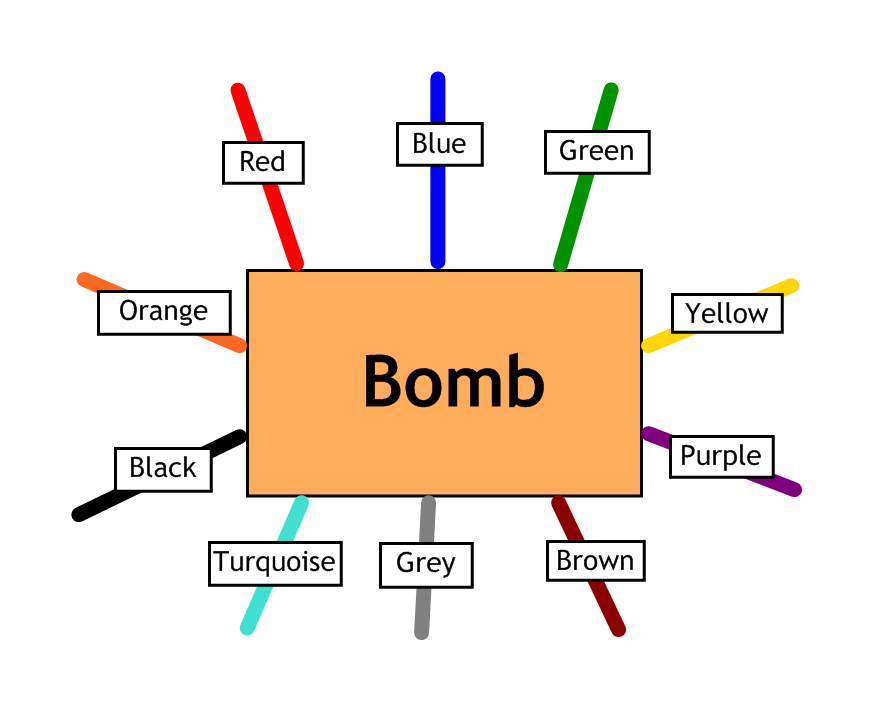
**Defuse the Bomb – Proportion**

The Mathematician, a notorious terrorist has planted a bomb. You must defuse that bomb using the mathematical clues he’s left.



Answer the questions, then cut the coloured wires in the order that the answers appear, using the table below:

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Red | Blue | Green | Yellow | Purple | Brown | Grey | Turquoise | Black | Orange |
| 4 | 75 | 8 | 14 | 28 | 24 | 18 | 16 | 20 | 56 |

Here are the clues that show which order to cut the wires:

|  |  |
| --- | --- |
| 1 | is directly proportional to .  When is 3, is 12.  What is when ? |
| 2 | is inversely proportional to .  When is 3, is 12.  What is when ? |
| 3 | is directly proportional to .  When is 12, is 2.  What is when ? |
| 4 | is directly proportional to .  When is 4, is 10.  What is when ? |
| 5 | is inversely proportional to .  When is 6, is 8.  What is when ? |
| 6 | is inversely proportional to .  When is 2, is 6.  What is when ? |
| 7 | is directly proportional to .  When is 12, is 9.  What is when ? |
| 8 | is inversely proportional to .  When is 27, is 2.  What is when ? |