Maths Tuesday 28 April 2020

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|---|---|---|
| 1 | Tahil has 32 football cards that he is giving away to his friends.<br><br>He shares them evenly.<br><br>How many friends could Tahil have? | |
| 2 | Use the clues to work out the number:<br><br>• It is greater than 10<br>• It is an odd number<br>• It is not a primer number<br>• It is less than 25<br>• It is a factor of 60 | |
| 3 | Clare's age is a multiple of 7 and less than a multiple of 8<br><br>How old it Clare?<br><br>Is this the only possibility? | *The answers are 21 or 77.*<br>*I don't understand the question with those answers. Can one of you explain it to me? Or do you agree with me that this is an idiotic question? If so, why is it impossible to answer?* |
| 4 | Nancy is double her sister's age.<br><br>They are both older than 20 and younger than 50<br><br>They are both multiples of 7<br><br>Work out their ages. | *List the multiples of 7 between 20 and 50 ...*<br>*Which one is double of the other ...?* |
| 5 | Train starts running from Leeds to York at 7am.<br>The last trains leaves at midnight.<br><br>Platform 1 has a train leaving from it every 12 minutes.<br>Platform 2 has one leaving from it every 5 minutes.<br><br>How many times in the day would there be a train leaving from both platforms at the same time? | *If you can't work it out mathematically, you could create a timeline and mark the time intervals of 5 and 12 minutes. Then you can see how often they overlap in an hour.*<br><br>*Then work out how many hours there are in which trains are leaving ...* |
| 6 | Use symbols ≤ , ≥ or = to make these statements correct<br><br>3 cubed ☐ 6 squared<br><br>8 squared ☐ 4 cubed<br><br>11 squared ☐ 5 cubed | |
| 7 | The sume of two prime numbers is 36.<br>Which numbers are they?<br><br>ext: Find all possibilities. | |

Answers on the next page

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|---|---|---|
| 1 | Tahil has 32 football cards that he is giving away to his friends.<br><br>He shares them evenly.<br><br>How many friends could Tahil have? | 1, 2, 4, 8 or 16 friends. |
| 2 | Use the clues to work out the number:<br><br>- It is greater than 10<br>- It is an odd number<br>- It is not a primer number<br>- It is less than 25<br>- It is a factor of 60 | 15 |
| 3 | Clare's age is a multiple of 7 and less than a multiple of 8<br><br>How old it Clare?<br><br>Is this the only possibility? | 21 or 77 |
| 4 | Nancy is double her sister's age.<br><br>They are both older than 20 and younger than 50<br><br>They are both multiples of 7<br><br>Work out their ages. | 21 or 77 |
| 5 | Train starts running from Leeds to York at 7am.<br>The last trains leaves at midnight.<br><br>Platform 1 has a train leaving from it every 12 minutes.<br>Platform 2 has one leaving from it every 5 minutes.<br><br>How many times in the day would there be a train leaving from both platforms at the same time? | Platform 1 and 2 will have a train leaving at the same time once every hour at o'clock.<br><br>Therefore there will be 18 times from 7am to midnight when a train will leave at both platform 1 and 2 |
| 6 | Use symbols ≤, ≥ or = to make these statements correct<br><br>3 cubed ☐ 6 squared<br><br>8 squared ☐ 4 cubed<br><br>11 squared ☐ 5 cubed | <br>≤ (marked <)<br>=<br>< | 3 cubed = 3 x 3 x 3 = $3^3$ = 27<br>6 squared = 36<br><br>8 squared = 64<br>4 cubed = 64<br><br>11 squared = 121<br>5 cubed = 125 |
| 7 | The sume of two prime numbers is 36.<br>Which numbers are they?<br><br>ext: Find all possibilities. | 5 and 31<br>7 and 29<br>13 and 23<br>17 and 19 |