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| 1. Find all the two-digit prime numbers which are also prime numbers when their digits are swapped round. | 2. Find a cube number which is also a square number. |
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| 3. A bus has 24 people on it. It comes to a bus stop and 11 people get off and 17 get on. How many carry on the journey? | 4. Which is more, $\frac{3}{4}$ of $£ 84$, or $\frac{2}{3}$ of $£ 96$ ? |
| 5. A game originally costs $£ 18$. How much will it be in a sale marked 20\% off? | 6. Can you share 2015 sweets equally between three children? |
| 7. Write down five numbers which have a mean of 6 , a median of 4 and a mode of 3 . | 8. Which multiples of 8 are factors of 120 ? |
| 9. Will 99 be one of the numbers in the sequence which starts $3,7,11,15,19, \ldots . . . . ?$ <br> Can you find a quick way to check? | 10. Which sorts of symmetry do these shapes all have? |

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| 1. Find pairs of prime numbers which are palindromes of each other. $11,13,17,31,37,71,73,79,97$ | 2. Find a cube number which is also a square number. <br> 1 and 64 are the ones under 100. |
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| 3. A bus has 24 people on it. It comes to a bus stop and 11 people get off and 17 get on. How many carry on the journey? <br> 30. | 4. Which is more, $\frac{3}{4}$ of $£ 84$ or $\frac{2}{3}$ of $£ 96$ ? $\frac{3}{4}$ of $£ 84=£ 63, \frac{2}{3}$ of $£ 96=£ 64$, so $\frac{2}{3}$ of $£ 96$ is more. |
| 5. A game costs $£ 18$. How much will it be in a sale marked $20 \%$ off? <br> $10 \%$ of $£ 18$ is $£ 1.80$, so $20 \%$ of $£ 18$ is $£ 3.60$, and the sale price is $£ 18-£ 3.60$ $=£ 14.40$. | 6. Can you share 2015 sweets equally between three children? <br> No. Each gets 671 sweets, with two left over. |
| 7. Write down five numbers which have a mean of 6 , a median of 4 and a mode of 3 . <br> 3,3,4 and two other numbers greater than 4 which add to 20. | 8. Which multiples of 8 are factors of 120? <br> $8,24,40$, and 120 itself. |
| 9. Will 99 be one of the numbers in the sequence which starts $3,7,11,15 \ldots . . . . ?$ <br> Can you find a quick way to check? <br> Yes. It's the 4-times table shifted back one. | 10. Which sorts of symmetry do these shapes all have? <br> They all have both line symmetry and rotational symmetry. |

