| Question | Answer |
| :---: | :---: |
| 1 |  |
| 2 | a) 55 <br> c) 66 <br> d) 110 <br> e) 77 <br> f) 44 <br> g) 33 <br> h) 132 |

a) Yes

1 is added to the tens digit and 1 is added to the ones digit, so 2 is added to the sum
of the digits. So the sum of the digits will always be even.
b) Up to $9 \times 11$, the two digits are the same.
a)

$$
66 \div 11=6
$$

b) 4
a)

| 88 |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 |

$$
88 \div 11=8
$$

$$
11 \times 8=88
$$

b)

| 110 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :---: | :---: | :---: | :---: | :---: |
| 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 |  |  |  |  |  |

$$
11 \times 10=110
$$

$$
110 \div 11=10
$$

c)

| 77 |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |

$7 \times 11=77$
$77 \div 11=7$

44 km
Children may work out how far each person ran and then find the difference $77-33=$ 44 or children may have seen the difference was 4 days and multiplied this by 11
a) 55
b) 7 more teams are needed.

| Question | Answer |
| :---: | :--- |
| 7 | The sum is always a multiple of 11 <br> As the digits are reversed, the number of tens in the sum is the same as the number of <br> ones, so the sum is a multiple of 11 |

