

1F

Divisibility tests

Example

A number is divisible by 3 if the sum of its digits is divisible by 3.

a Is 348 divisible by 3? **b** Is 1927 divisible by 3?

a $3 + 4 + 8 = 15$

15 is divisible by 3

so 348 is divisible by 3

b $1 + 9 + 2 + 7 = 19$

19 is not divisible by 3 so

1927 is not divisible by 3

- d 10 **c** 3 and 12 **d** 3 and 18
 and 4 **g** 15 and 5 **h** 25 and 5
 and 8 **k** 4 and 7 **l** 3 and 10
 and 9 **o** 7 and 5 **p** 9 and 4
- b** 5, 8 and 12 **c** 5, 6 and 7
e 4, 7 and 8 **f** 3, 15 and 18

tes. A second light flashes every 28 minutes.
 at will be the time when they next flash together?

Use the divisibility tests to answer these questions.

1. Which of these numbers are divisible by 3?

- a** 51 **b** 82 **c** 104 **d** 117
e 162 **f** 451 **g** 845 **h** 6432

2. Which of these numbers are divisible by 5?

- a** 87 **b** 45 **c** 236 **d** 439
e 545 **f** 1068 **g** 6534 **h** 9875

3. Which of these numbers are divisible by 2?

- a** 77 **b** 98 **c** 114 **d** 237
e 86 **f** 779 **g** 5243 **h** 6766

4. A number is divisible by 4 if the number formed from the last two digits is divisible by 4. Which of these numbers are divisible by 4?

- a** 308 **b** 244 **c** 555 **d** 236
e 783 **f** 6520 **g** 7654 **h** 9888

5. A number is divisible by 9 if the sum of its digits is divisible by 9. Which of these numbers are divisible by 9?

- a** 126 **b** 415 **c** 368 **d** 675
e 2377 **f** 6666 **g** 9162 **h** 7557

6. A number is divisible by 6 if it is an even number **and** the sum of its digits is divisible by 3. Which of these numbers are divisible by 6?

- a** 84 **b** 426 **c** 252 **d** 441
e 783 **f** 722 **g** 6432 **h** 8116

7. How can you test whether a 3-digit number is divisible by 11?