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

Use 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?