Stage 5 Cambridge Primary Mathematics Practice Worksheet

Tuesday 18 August 2026

Syllabus Focus: Objective 5Ni.07 — Tests of Divisibility for 4 and 8

Topic: Applying factor/multiple rules and repeated halving to test divisibility

Time Allowed: 30 Minutes | **Total Marks:** 20 Marks

Section A: Halving Methods & Rules

Question 1 [1 Mark]

Select the correct rule to check if a large whole number is divisible by 4:

- **A:** Check if the last digit is an even number.
- **B:** Check if the last two digits form a number divisible by 4.
- **C:** Add all the digits together and check if the sum is 4.
- **D:** Check if the last three digits form a number divisible by 4.

Answer: Letter _____

Question 2 *(TWM.01 Specialising)* [2 Marks]

Use the **repeated halving method** to test whether 136 is divisible by 4.

- First Halve (136 ÷ 2): _____ [1]
- Second Halve (Result ÷ 2): _____ [1]

Is 136 divisible by 4? Answer: _____

Question 3 *(TWM.01 Specialising)* [2 Marks]

Use the **repeated halving method** (halving three times) to test whether 216 is divisible by 8.

- First Halve (216 ÷ 2): _____ [0.5]
- Second Halve (Result ÷ 2): _____ [0.5]

- Third Halve (Result ÷ 2): _____ [0.5]

Is 216 divisible by 8? Answer: _____ [0.5]

Section B: Last Digits Rule for 4 and 8

Question 4 [2 Marks]

Look at the numbers below:

316, 812, 948, 2025

(a) State which number is **not divisible by 4** without doing long division, and explain how you know instantly. [1]

Number: _____ Reason: _____

(b) For 812, underline the last two digits and show why it is divisible by 4. [1]

Last two digits: _____ → Calculation: _____ ÷ 4 = _____

Question 5 [2 Marks]

Determine whether each 4-digit number is divisible by 8 by checking its **last three digits**:

(a) 1,432 → Last 3 digits: _____ → Divisible by 8? [Yes / No]: _____ [1]

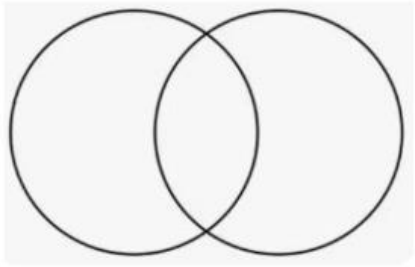
(b) 5,144 → Last 3 digits: _____ → Divisible by 8? [Yes / No]: _____ [1]

Section C: Classification & Missing Digits

Question 6 [2 Marks]

Sort the following numbers into the Venn diagram below: 16, 36, 88, 100

Divisible by 4 Divisible by 8



Only Divisible by 4: _____ [1]

- Divisible by BOTH 4 and 8: _____ [1]

Question 7 *(TWM.02 Generalising)* [2 Marks]

Fill in the missing digit □ to make each statement true:

(a) 53□ is divisible by 4. (Give one possible digit for □). [1]

Answer: □ = _____

(b) 1.8□8 is divisible by 8. (Give one possible digit for □). [1]

Answer: □ = _____

Section D: Reasoning, Connections, and Extensions

Question 8 *(TWM.02 Generalising)* [2 Marks]

Farai says: "*If a number is divisible by 8, it must automatically be divisible by 4.*"

Is Farai correct or incorrect? Explain your reasoning using your knowledge of factors.

Answer: _____ [1]

Explanation: _____

_____ [1]

Question 9 [2 Marks]

Tarisai is testing a 5-digit number: 23,516.

(a) Is 23,516 divisible by 4? Show your working using the last-digits rule. [1]

Answer: _____

(b) Is 23,516 divisible by 8? Show your working using the last-digits rule. [1]

Answer: _____

Question 10 ***(Extension / TWM.02 Generalising)*** **[3 Marks]**

We know that:

- To test for **4** (2 × 2), we halve **2 times** (or check the last **2 digits**).
- To test for **8** (2 × 2 × 2), we halve **3 times** (or check the last **3 digits**).

(a) How many times would you need to halve a number to test if it is divisible by 16? [1]

Answer: _____ times

(b) How many last digits would you need to inspect to test for divisibility by 16? [1]

Answer: Last _____ digits

(c) Test if 1,032 is divisible by 16 using your rule from part (a) or (b). Show your steps. [1]

Answer: _____