JAMAICA

SAMPLE

# PEP

# Mathematics

## Curriculum Based Test

# Practice Papers

hachette LEARNING

# Contents

# Introduction

Towards the end of this year, you will write a multiple-choice Curriculum Based Test in Mathematics. This book is designed to help you prepare for this test by making sure that you know what to expect and how to answer questions so that you can do your very best.

## What to expect

The Curriculum Based Test is a multiple-choice test. For each question, you will be given at least four different answers. Most questions have one correct answer, but some will have more. Although you just shade the correct answer/s, you will still need to do some working out to decide what is correct. You can do this on the test paper, or on a separate sheet.

You will be expected to answer 40 questions and you will have 1 hour and 30 minutes to complete the test.

### How can you prepare for the Curriculum Based Test?

There are ten practice tests in this book. You can use these to revise your work and prepare for your in-school test.

- Work through the tests on your own or with a partner. Remember that working in pairs or groups can help you learn.
- Check your own answers.
- Reflect on your work. Identify what you did well and which areas you need to improve. Decide what you will do to make the improvements you need.

## Developing good techniques

Practice tests can help you develop some good techniques for managing your in-class tests. These include:

- Managing your time.
- Reading and making sense of questions and what you need to do.
- Choosing suitable strategies for different types of questions.
- Showing your answer choices clearly.

Practising and learning how to complete tests can also help you feel less anxious and pressurised because you are prepared, and you have practised answering lots of different questions on the topics you have learned.

For more help on what to expect, well-being tips and tips for answering questions, please go to the Hodder Education website.

Answers to all the questions can also be found on the Hodder Education website.

# Practice test 1

**Time allowed: 1 hour and 30 minutes**

**Instructions**

**Carefully read and answer ALL questions.**

**For questions 1 to 34, there is only one (1) correct answer.**

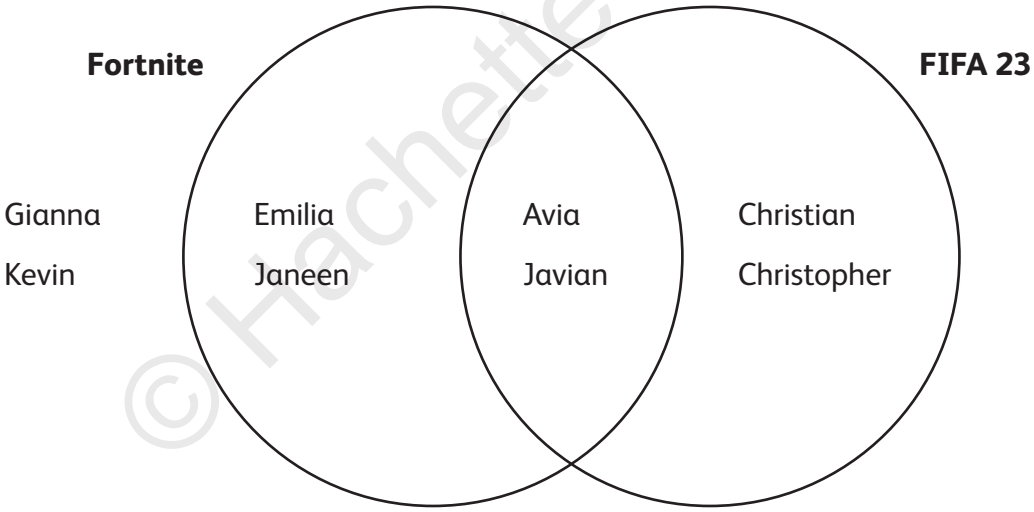
**Choose the correct answer and shade A, B, C or D to show your choice.**

**You can use the space around each question to do any working you need.**

**1** Which name CORRECTLY represents the number 6 124?

(A) six thousand one hundred and twenty-four
(B) six thousand two hundred and fourteen
(C) one thousand six hundred and twenty-four
(D) six thousand four hundred and twelve

Questions 2 to 4 refer to the following Venn diagram below showing two computer games that children play.




**2** Which students played FIFA 23 only?

(A) Avia, Javian
(B) Emilia, Janeen
(C) Gianna, Kevin
(D) Christian, Christopher

**3** Which students played neither FIFA 23 nor Fortnite?

(A) Avia, Javian
(B) Emilia, Janeen
(C) Gianna, Kevin
(D) Christian, Christopher

**4** How many students played both games?

(A) 2
(B) 4
(C) 6
(D) 8

**5** What are the first and last terms in the sequence below?

_____, 105, 101, 95, 87, 77, _____

(A) 100, 65
(B) 107, 65
(C) 110, 67
(D) 109, 67

**6** The expanded form of a number is shown below. What is the number?

30 000 + 4 000 + 200 + 10 + 8

(A) 304 218
(B) 342 180
(C) 34 218
(D) 3 421

**7** Which of the following is NOT a multiple of 6?

(A) 3
(B) 12
(C) 24
(D) 30

**Four numbers are shown below. The value of the digit 5 is less than one thousand in each of the numbers in the box. Examine the numbers carefully, then answer question 8.**

3 **5**02 31**5** **5**4 32 0**5**0

**8** For which of the following is the value of the digit 5 also less than one thousand?

(A) 1 587 344
(B) 359 463
(C) 45 639
(D) 1 534

**9** In the number 77 812, digit 8 is in the _____ place.

(A) tens
(B) hundreds
(C) thousands
(D) ten-thousands

**10** Which statement is an example of a finite set?

(A) the set of numbers greater than 20
(B) the set of prime numbers less than 20
(C) the set of even numbers
(D) the set of odd numbers greater than 3

**11** Which number should be placed in the number sentence below to make it true?

3.8 × _____ = 95

(A) 25
(B) 91.2
(C) 98.8
(D) 361

## Example

A student made the following statement. Use it to answer question 12.

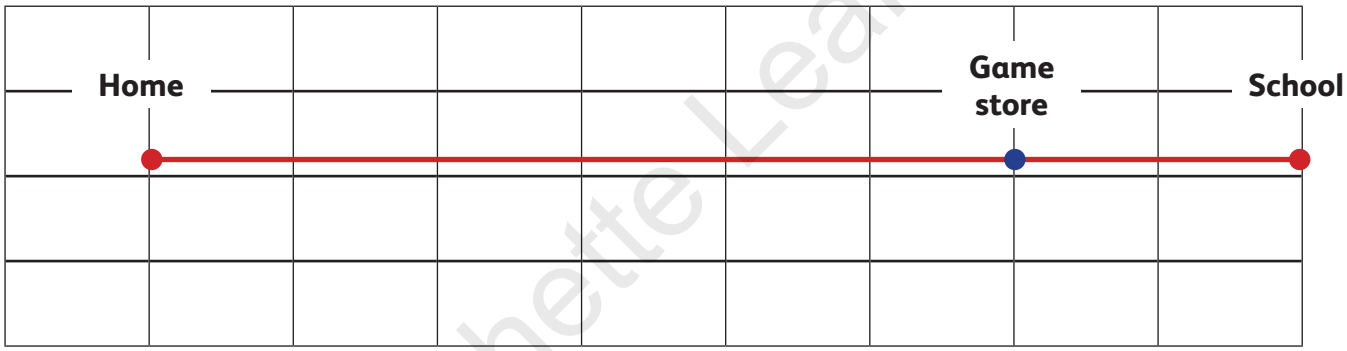
"When dividing a number by 10, simply remove the zero at the end of the number."

For example: 2 040 ÷ 10 = 204

**12** For which number will this strategy work?

(A) 503.0
(B) 204
(C) 200
(D) 202

**13** Jonathan rides from his school to home along a straight path.




What percentage of the journey does he have remaining if he stopped at a game store?

(A) 25%
(B) 37.5%
(C) 50%
(D) 75%

**14** Which of the following sequences is an example of consecutive squared numbers?

(A) 1, 2, 4, 9, 16
(B) 4, 8, 12, 16, 20
(C) 1, 4, 9, 16
(D) 4, 16, 36, 48

**15** Which of the following ratios is equivalent to 3:4?

(A) 6:12
(B) 9:12
(C) 7:21
(D) 12:9

**16** Which of the following fractions is equivalent to $\frac{1}{5}$?

(A) $\frac{5}{1}$
(B) $\frac{3}{21}$
(C) $\frac{5}{20}$
(D) $\frac{4}{20}$

**17** Which problem can be solved by subtracting $\frac{1}{2}$ and $\frac{1}{3}$?

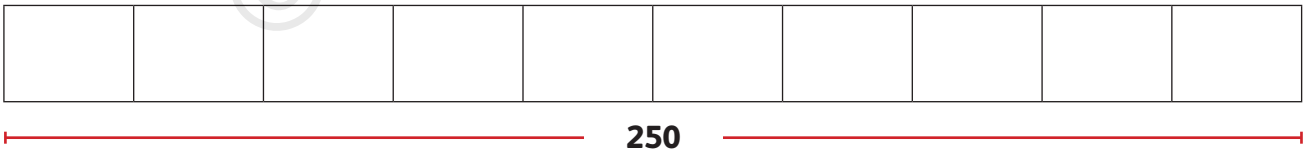
(A) Ryan puts $\frac{1}{2}$ of his crayons into his pencil case. He then receives $\frac{1}{3}$ and places them in the same case. What fraction of his crayons are now in the case?

(B) Ryan puts $\frac{1}{2}$ of his crayons into his pencil case. He then gives away $\frac{1}{3}$ of those crayons. What fraction of his crayons are now in the case?

(C) Ryan gives $\frac{1}{2}$ of his crayons to Christene. He then receives $\frac{1}{3}$ and places them in the same case. What fraction of his crayons are now in the case?

(D) Ryan puts $\frac{1}{2}$ of his crayons into his pencil case. He then receives $\frac{1}{3}$ and places them in the same case and Kerry gives another $\frac{1}{3}$. What fraction of his crayons are now in the case?

**The diagram below represents the number 250. Use it to answer question 18.**

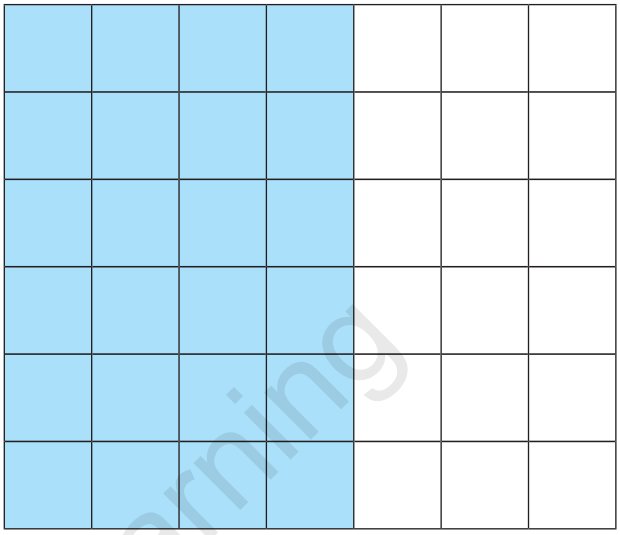



**18** What is 70% of the number?

(A) 30
(B) 50
(C) 175
(D) 220

**The students in a class were given the following grid and asked to comment on the portion of the grid that is shaded. Use the grid, as well as the comments four students made about it, to answer question 19.**

**Grid**



**Comments:**

**Wade:** "$\frac{4}{7}$ of the grid is shaded"
**Kemar:** "0.57 of the grid is shaded"
**Janeen:** "57% of the grid is shaded"
**Kyon:** "$\frac{3}{7}$ of the grid is shaded"

**19** Which student's comment is NOT correct?

(A) Wade
(B) Kemar
(C) Janeen
(D) Kyon

**20** 25% of a number is 30. What is the number?

(A) 120
(B) 55
(C) 7.5
(D) 5

**21** Which of the following shows a reciprocal of the product of 4 and 8?

(A) $\frac{1}{32}$
(B) $\frac{1}{12}$
(C) 12
(D) 32

**22** Forty-five sweets were shared between Roxanne, Jackie and Carlton in the ratio of 2:3:4 respectively. What was Jackie's share?

(A) 10 sweets
(B) 15 sweets
(C) 20 sweets
(D) 25 sweets

**The table below shows the number of boys and girls in Grades 2 to 6 at Portsmouth Primary School.**

**Use the table to answer questions 23 and 24.**

| Grade | Boys | Girls |
|---|---|---|
| **2** | 15 | 20 |
| **3** | 24 | 34 |
| **4** | 10 | 25 |
| **5** | 24 | 16 |
| **6** | 22 | 33 |

**23** Which Grades are reciprocal ratios of boys to girls?

(A) Grades 2 and 3
(B) Grades 3 and 4
(C) Grades 4 and 5
(D) Grades 5 and 6

**24** In which Grade is the ratio of boys to girls 2:5?

(A) Grade 2
(B) Grade 3
(C) Grade 4
(D) Grade 5

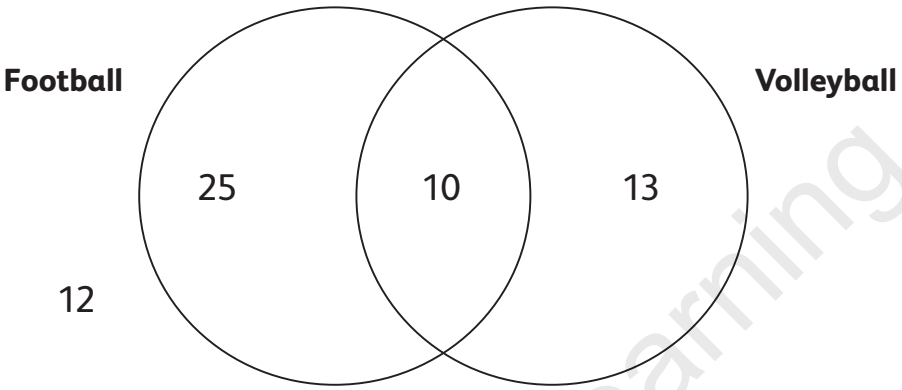
**Read the rule below and use it to answer question 25.**

An athlete was training for an 800-m event. His coach told him to jog for 15 minutes for the first week. Each week afterwards, he should increase his time by 3 minutes.

**25** Which pattern would follow this rule?

(A) 15, 18, 21, 24, 27, 30
(B) 15, 15, 18, 18, 21, 21
(C) 15, 12, 9, 6, 3, 0
(D) 15, 18, 22, 25, 28, 31

Questions 26 to 28 refer to the Venn diagram below:




**Of the 117 students in Grade 6 at Waterford Primary School, the boys were asked to name the sport they played.**

**26** How many boys played both football and volleyball?

(A) 10
(B) 23
(C) 25
(D) 48

**27** How many girls are in Grade 6?

(A) 57
(B) 60
(C) 105
(D) 117

**28** How many boys played volleyball only?

(A) 10
(B) 12
(C) 13
(D) 25

Questions 29 to 31 refer to the following scenario. A company pays Matthew, Daniel and Tatiana weekly wages in the ratio of 3:4:5, respectively. Daniel's salary is US$1 250.00 per week.

**29** What is the total salary paid by the company?

(A) US$937.50
(B) US$1 250.00
(C) US$1 562.50
(D) US$3 750.00

**30** What is the total salary that Matthew would earn after a fortnight?

(A) US$937.50
(B) US$1 875.00
(C) US$1 562.50
(D) US$2 187.50

**31** Tatiana is paid for four weeks of work. How much will she earn if a US$462.50 car payment is deducted from the total?

(A) US$1 100.00
(B) US$1 562.50
(C) US$5 787.50
(D) US$6 250.00

**32** What is the ratio of the shaded to unshaded parts in the diagram below?

(A) 1:2
(B) 2:1
(C) 5:15
(D) 1:5

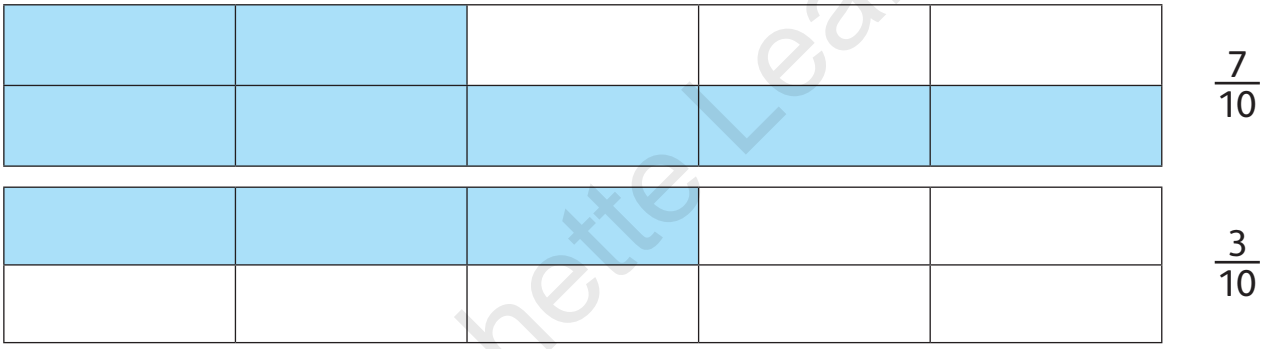
**33** Which number is both a factor and a multiple of 9?

(A) 3
(B) 9
(C) 18
(D) 27

**34** Which of the following shows the reciprocal of the sum of 15 and 3?

(A) $\frac{1}{45}$
(B) 45
(C) $\frac{1}{18}$
(D) 18

**The diagrams below show two fractions, $\frac{7}{10}$ and $\frac{3}{10}$. Use them to answer question 35.**




**For questions 35 and 36, there is more than one (1) correct answer. Indicate your responses to each question by shading all the correct answers.**

**35** Determine the value of $\frac{7}{10} + \frac{3}{10}$

(A) $\frac{10}{10}$
(B) $\frac{1}{2}$
(C) 1
(D) $\frac{4}{10}$

**36** Which numbers are NOT prime factors of 65?

(A) 5
(B) 10
(C) 13
(D) 1

**For questions 37 to 39, there is more than one (1) correct answer. Indicate your responses to each question by shading the correct answers.**

**The following image shows 20 sweet treats in a box. Use it to answer questions 37 and 38.**


**37** The sweet treats are in a 3:2 ratio for chocolates and lollipops, respectively. Which of the following statements about the contents of the box is correct?

(A) The box contains 60% lollipops and 40% chocolates.

(B) The box has 60% chocolates and 40% lollipops.

(C) The equivalent ratio of the chocolates to lollipops is 18:12.

(D) The sum of $\frac{1}{3}$ and $\frac{1}{2}$ is the fraction form for the ratio of chocolates to lollipops.

**38** Nadia eats three of the lollipops and two of the chocolates. Which of these statements are true about the remaining sweets in the box?

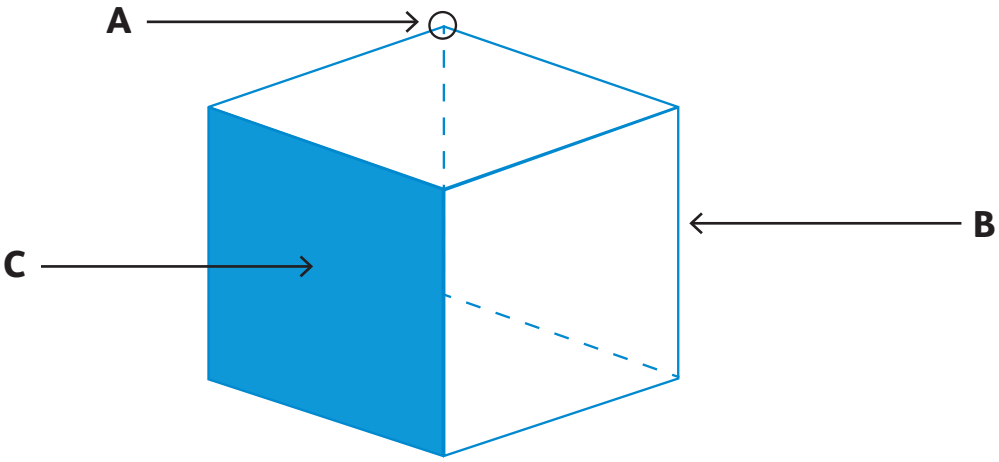
(A) There are now twice as many chocolates as lollipops.

(B) The ratio of lollipops to chocolates is the same as it was before.

(C) $\frac{1}{3}$ of the remaining sweets are lollipops.

(D) The ratio of chocolates to lollipops is now 5:10.

**The diagram below represents a cube. Use it to answer question 39.**




**39** Shade the appropriate letter in each row that represents each part of the cube.

| Part of the cube | Letter |
|---|---|
| **edge** | (A) (B) (C) |
| **face** | (A) (B) (C) |
| **vertex** | (A) (B) (C) |

**For item 40, indicate your response to each item by shading the appropriate letter in the sentence that makes it correct.**

**Each letter corresponds to a number from a given list of options. Each option should be used only once. Not all options have to be used.**

**40** Choose two numbers from the list of options given below that make the number sentence that follows true.

| (A) | (B) | (C) | (D) |
|---|---|---|---|
| 4 | 5 | 3 | 2 |

There are ((A) (B) (C) (D)) groups of 5 OR ((A) (B) (C) (D)) groups of 4 in the number 20.

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# PEP Mathematics

## Curriculum Based Test Practice Papers

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