

11+ CEM Mathematics

Paper 4

THE **EXAM** COACH

- To receive free 11+ practice papers/answers and preparation workshops every week subscribe to our email newsletter.
Just visit www.theexamcoach.tv
- Our youthful super-tutors deliver the best 11 Plus exam preparation courses on the internet. Use us to prepare your child for grammar and independent school entrance in the UK.
Visit www.theexamcoach.tv/courses to book!
- If you're searching for information on your target school visit our school guide pages.
<https://www.theexamcoach.tv/grammar-school-guides>
- Want to expand your child's vocabulary? Listen to The Exam Coach Podcast on Amazon Alexa, Apple Podcasts, Amazon Music, Spotify and YouTube. New episodes are released every day.



© The Exam Coach | teamkeen@theexamcoach.tv

Book an 11 Plus exam preparation course: www.theexamcoach.tv/courses

11+ CEM Mathematics Paper 4

Instructions:

- You have 22 minutes to answer 27 questions.
- Carefully read through the passage of writing and then answer the questions that follow.
- Put a line through the correct answer by choosing one of the options A-D.

Example:

The **Correct** way to mark your answers on the answer sheet:



Correct

The **Incorrect** way to mark your answers on the answer sheet:



Incorrect

Use a pencil to mark your answers. **Rub out any errors**, do not cross them out.

Please take care when marking your answers on your answer sheets.

Make sure you mark your answer **on the line that matches the question number and mark only one answer per line.**

Information about the test papers:

- The page number is in the top right corner of each page.
- The title of each section is provided in the box at the top of each page.
- The timings for the different sections are shown on the example pages.

Instructions at the bottom of the pages inform you:

- If you can continue to the next page
- When you should wait for instructions before you turn the page
- When you have reached the end of a section.

The following symbols and phrases are used on the test papers.



Symbol Description:

Time allowed for the section.



Symbol Description:

Go to the next page.



Symbol Description:

Do not turn the page until you are told to do so.



Symbol Description:

STOP WORKING. You may check your work from this section only.

Maths 1



You have 10 minutes for this section.

1) What is the next number in the sequence?

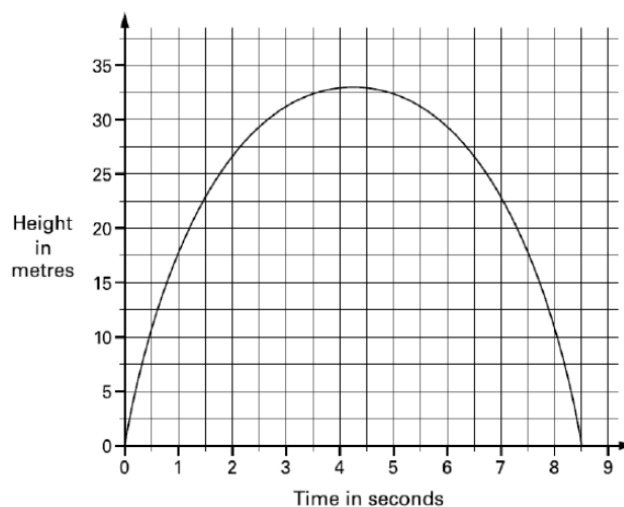
5, 5.5, 6.1, 6.8, 7.6?

2) Katie buys two packs of 10 pencils that are £1.50 for each pack. She sells each pencil for 25p. How much profit does she make?

3) A jacket initially costed £40. It is on sale for 50% and an extra 25% of the new price. What is the price of the jacket now?

4) What is the value of $3 \times 7 + 4 \times 2$?

5) This graph shows the height of a firework rocket at different times.



To the nearest 5 meters, how high was the rocket at 6 seconds?



6) What is the mean of the following numbers?

3.5, 3.7, 3.9, 4.3, 4.6

7) What is 25% of 64?

8) What is the total of twenty-five thousand two hundred and six plus three thousand and thirty-two? Write this in digits.

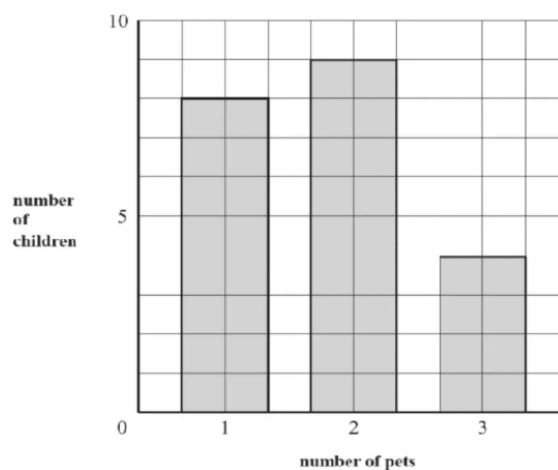
9) There are 30 balls in a bag. $\frac{3}{5}$ are red, $\frac{1}{6}$ are blue. The rest are green. What is the probability of drawing a green ball?

10) David thinks of a number. He halves it, adds five and multiplies by two. His answer is 46. What is his number?

11) Charlotte draws a quadrilateral. One angle is 50° . Another is double this, and another is 73° . What is the size of the fourth angle?



12) The bar chart shows the number of pets owned by children in a class.



What is the modal number of pets?



Maths 2



You have 12 minutes for this section.

- 1) Apples come in bags of 5. Serena needs 12 apples to make apple pies for her family. How many bags must she buy?

A 3 B 4 C 5 D 6

- 2) Subtract 1202 from 2021.

A 817 B 818 C 819 D 820

- 3) What is 296 divided by 8?

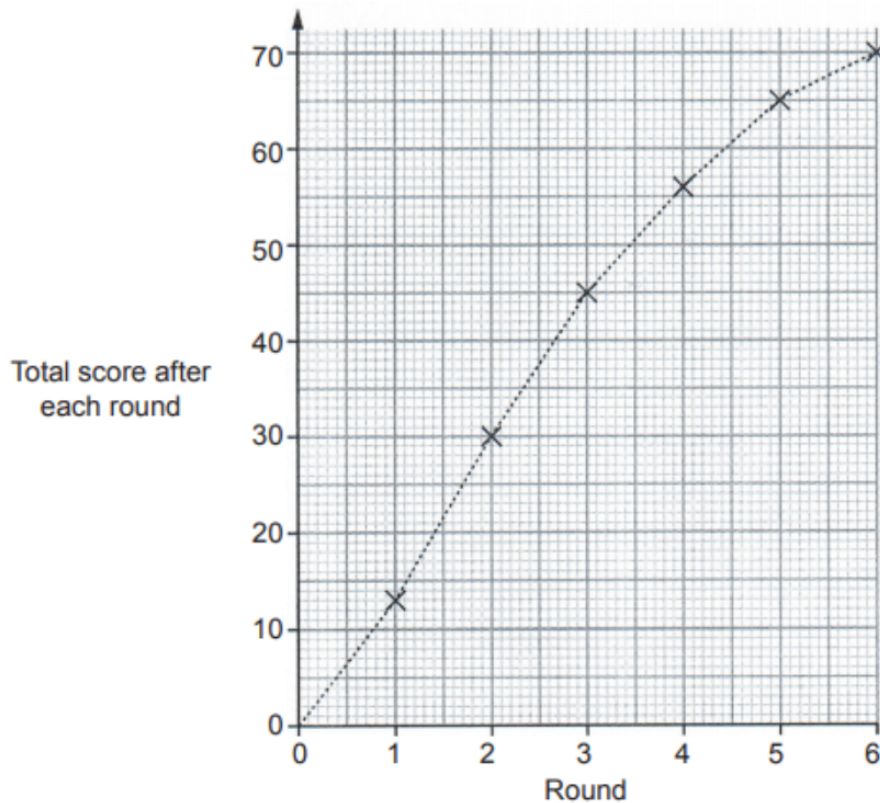
A 34 B 37 C 38 D 40

- 4) Peter wants to make 6 150ml glasses of squash. To make one glass, the ratio of cordial to water needs to be 1:2. How many ml of cordial does she need for all 6 glasses?

A 50 B 150 C 200 D 300



5) The graph shows Anthony's score after each round of scrabble.



How many points did he score in round 4?

- A 10 B 11 C 13 D 15**

6) Which is the smallest fraction?

- A $\frac{2}{3}$ B $\frac{4}{5}$ C $\frac{5}{8}$ D $\frac{3}{4}$**

7) James receives £25 pocket money this week. He spends £2.00 on sweets, £3.00 on crisps. He puts $\frac{4}{5}$ of the remaining amount in his piggy bank. How much does he have left?

- A £4 B £5 C £6 D £8**

8) A cube has sides of 3cm. Another cube has sides of 5cm. What is the difference in surface area between the two cubes?

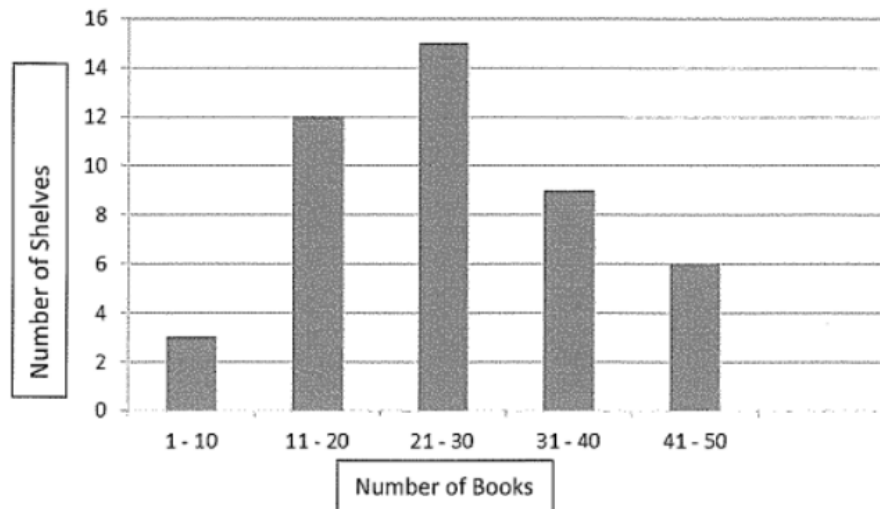
- A 16 B 96 C 98 D 106**



9) A triangle has a corner at the position (3, 6). It is translated three units up, and two units to the left. What is the new position?

- A** (1, 9) **B** (0, 8) **C** (6, 4) **D** (6, 8)

10) The bar chart shows how many shelves had different numbers of books.



How many shelves had 30 or fewer books?

- A** 14 **B** 15 **C** 30 **D** 35

11) Kimberly's garden measures 8m x 6m. She wishes to put a fence around the whole garden. Fencing comes in 10m sets. How many must she buy?

- A** 2 **B** 3 **C** 4 **D** 5

12) Amy takes 25 minutes reading ten pages of her book. Her book is 52 pages. She starts reading at 4pm. What time does she finish reading her book?

- A** 5:30pm **B** 5:50pm **C** 6:10pm **D** 6:20pm

13) What is the exterior angle of a hexagon?

- A** 54° **B** 60° **C** 108° **D** 120°



14) Solve for b.

$$4b - 12 = 6b - 22$$

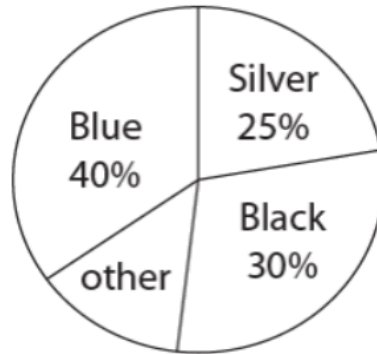
A 3

B 4

C 5

D 6

15) The pie chart shows the proportions of different cars parked in the car park.



There were 36 black cars. How many blue cars were there?

A 36

B 48

C 55

D 62



Stop working. Remember to check your work.

