IGCSE Cambridge Topical Past Papers

MATHEMATICS 9-1

0980 Paper 1

2020 — 2025

EXAMINENT

www.examinent.com

1 - (0980/12_Summer_2020_Q1)

(a) Write in figures the number fifty-three thousand and thirty-five.

..... [1]

(b) Write 8379 correct to the nearest hundred.

..... [1]

2 - (0980/12_Summer_2020_Q3)

Write down the reciprocal of 10.

..... [1]

3 - (0980/12_Summer_2020_Q4)

(a) Find the value of $\sqrt{196}$.

..... [1]

(b) Calculate 15^3.

..... [1]

4 - (0980/12_Summer_2020_Q5)

Put one pair of brackets in each statement to make it correct.

(a) $16 \div 8 + 4 \times 2 = 1$ [1]

(b) $16 \div 8 + 4 \times 2 = 12$ [1]

5 - (0980/12_Summer_2020_Q11)

Write down

(a) a square number greater than 10,

..... [1]

(b) an irrational number.

..... [1]

6 - (0980/12_Summer_2020_Q13)

The height, h metres, of a tower is 76.3 m, correct to 1 decimal place.

Complete this statement about the value of h.

$\leqslant h <$ ..... [2]

7 - (0980/12_Summer_2020_Q17)

Write 2^{-4} as a decimal.

..... [1]

8 - (0980/12_Summer_2020_Q18)

Without using a calculator, work out $1\frac{3}{4} - \frac{11}{12}$.
You must show all your working and give your answer as a fraction in its simplest form.

..... [3]

9 - (0980/12_Summer_2020_Q19)

Roberto buys a toy for \$5.00 .
He then sells it for \$4.60 .

Calculate his percentage loss.

..... % [2]

10 - (0980/12_Summer_2020_Q21)

(a) Write 45 000 in standard form.

..... [1]

(b) Write 2.06×10^{-2} as an ordinary number.

..... [1]

11 - (0980/12_Summer_2020_Q22)

(a) Write down all the factors of 28.

.....[2]

(b) Write 54 as a product of its prime factors.

..... [2]

(c) Find the lowest common multiple (LCM) of 48 and 60.

..... [2]

12 - (0980/11_Winter_2020_Q3)

Write $\frac{60}{105}$ in its simplest form.

..... [1]

13 - (0980/11_Winter_2020_Q4)

Calculate.

$$\sqrt{\frac{1}{0.01}-8^2}$$

..... [1]

14 - (0980/11_Winter_2020_Q9)

Alan and Beth share \$1190 in the ratio Alan : Beth = 5 : 2.

Work out how much Alan receives.

..... [2]

15 - (0980/11_Winter_2020_Q10)

Work out.

(a) $\begin{pmatrix} 2 \\ -3 \end{pmatrix} + \begin{pmatrix} 5 \\ -1 \end{pmatrix}$

$\begin{pmatrix} \quad \\ \quad \end{pmatrix}$ [1]

(b) $4\begin{pmatrix} 2 \\ -5 \end{pmatrix}$

$\begin{pmatrix} \quad \\ \quad \end{pmatrix}$ [1]

16 - (0980/11_Winter_2020_Q11)

Rangan buys 3.6 kg of potatoes and 2.8 kg of leeks.
The total cost is \$13.72 .
Leeks cost \$2.65 per kilogram.

Find the cost of 1 kg of potatoes.

..... [3]

17 - (0980/11_Winter_2020_Q12)

$$T = \frac{49.2 - 9.59}{4.085 \times 2.35}$$

By writing each number correct to 1 significant figure, work out an estimate for T.
You must show all your working.

..... [2]

18 - (0980/11_Winter_2020_Q13)

(a) Write 18 as the product of its prime factors.

..... [2]

(b) At a bus stop

- a red bus arrives every 18 minutes

and

- a blue bus arrives every 24 minutes.

At 10 47 a red bus and a blue bus arrive.

Find the next time when a red bus and a blue bus arrive together.

..... [3]

19 - (0980/11_Winter_2020_Q14)

Without using a calculator, work out $2\frac{2}{3} \times 2\frac{3}{4}$.

You must show all your working and give your answer as a mixed number in its simplest form.

..... [3]

20 - (0980/11_Winter_2020_Q17)

Trina invests \$16 000 at a rate of 5% per year compound interest.

Work out the value of her investment at the end of 4 years.

..... [2]

21 - (0980/12_Summer_2021_Q2)

Write down all the factors of 42.

..... [2]

22 - (0980/12_Summer_2021_Q5)

The formula for changing a temperature measured in Celsius (°C) to Fahrenheit (°F) is

$$F = \frac{9C}{5} + 32.$$

Use this formula to change 65°C to Fahrenheit.

..... °F [2]

23 - (0980/12_Summer_2021_Q6)

(a) **Without using a calculator**, work out $9+5\times7-4\div2$.
You must show all your working.

..... [2]

(b) Insert one pair of brackets into this statement to make it correct.

$$9 + 5 \times 7 - 4 \div 2 = 96$$

[1]

24 - (0980/12_Summer_2021_Q8)

Write down the number that you

(a) add to -4 to give an answer of 9,

..... [1]

(b) subtract from -9 to give an answer of -4.

..... [1]

25 - (0980/12_Summer_2021_Q11)

Calculate $\sqrt[4]{0.0256}$.

..... [1]

26 - (0980/12_Summer_2021_Q13)

(a) Complete these statements.

The reciprocal of 0.2 is .....

A prime number between 90 and 100 is ..... [2]

(b)

$\frac{7}{5}$ 0.6 $\sqrt{7}$ 8 $\sqrt{9}$

From this list, write down an irrational number.

..... [1]

1 - (0980/12_Summer_2020_Q1)

(a)	53035	**1**	
(b)	8400		

2 - (0980/12_Summer_2020_Q3)

	$\frac{1}{10}$		

3 - (0980/12_Summer_2020_Q4)

(a)	14		
(b)	3375		

4 - (0980/12_Summer_2020_Q5)

(a)	$16 \div (8 + 4 \times 2) = 1$	**1**	
(b)	$(16 \div 8 + 4) \times 2 = 12$	**1**	

5 - (0980/12_Summer_2020_Q11)

(a)	Any square number greater than 10		
(b)	Any irrational number	**1**	

6 - (0980/12_Summer_2020_Q13)

	76.25 76.35	**2**	**B1** for each or both correct and reversed

7 - (0980/12_Summer_2020_Q17)

	0.0625		

8 - (0980/12_Summer_2020_Q18)

	$\frac{7}{4}$	$\frac{9}{12}$		
	$\frac{21}{12}$	$1-\frac{2}{12}$	**M1**	
	$\frac{5}{6}$	$\frac{5}{6}$	**A1**	

9 - (0980/12_Summer_2020_Q19)

	8	**2**	**M1** for $\frac{5-4.60}{5}$ [×100] or $\frac{4.60}{5}\times 100$

10 - (0980/12_Summer_2020_Q21)

(a)	4.5×10^4	**1**	
(b)	0.0206	**1**	

11 - (0980/12_Summer_2020_Q22)

(a)	1 2 4 7 14 28	**2**	**B1** for 4 or 5 correct with no extras or 6 correct with one extra
(b)	$2\times 3\times 3\times 3$ or 2×3^3	**2**	**M1** for 2, 3, 3, 3 or correct factor tree
(c)	240	**2**	**M1** for 48 = 2, 2, 2, 2, 3 or 60 = 2, 2, 3, 5 or list of multiples of both 48 and 60, at least 3 of each or **B1** for 240*k*

12 - (0980/11_Winter_2020_Q3)

	$\frac{4}{7}$ cao	**1**	

13 - (0980/11_Winter_2020_Q4)

	6	**1**	

14 - (0980/11_Winter_2020_Q9)

	850[.00]	**2**	**M1** for $\frac{1190}{5+2}$

15 - (0980/11_Winter_2020_Q10)

(a)	$\begin{pmatrix} 7 \\ -4 \end{pmatrix}$	**1**	
(b)	$\begin{pmatrix} 8 \\ -20 \end{pmatrix}$	**1**	

16 - (0980/11_Winter_2020_Q11)

	1.75	**3**	**M2** for $(13.72 - 2.8 \times 2.65) \div 3.6$ oe or **M1** for 2.8×2.65

17 - (0980/11_Winter_2020_Q12)

	$\frac{50-10}{4\times2}$	**M1**	Allow **M1** for 3 out of 4 values correctly rounded or for all correct but with any trailing zeros
	5	**A1**	dep on $\frac{50-10}{4\times2}$

18 - (0980/11_Winter_2020_Q13)

(a)	2×3^2 or $2 \times 3 \times 3$	**2**	**B1** for 2, 3, 3 may be seen in a factor tree or table
(b)	11 59	**3**	**B2** for $2^3 \times 3^2$ soi by 72 or 1[h] 12[min] or correct times of **both** buses to 11 59 or **B1** for correct times of **one** bus to 11 59 or **M1** for $2^3 \times 3$ or for 18, 36, 54 [...] **and** 24, 48 [...] or listing times of next 4 red buses **and** next 3 blue buses, follow through max 1 error or omission in each list

19 - (0980/11_Winter_2020_Q14)

	$\frac{8}{3}$ and $\frac{11}{4}$ oe improper fractions	**M1**	
	$\frac{88}{12}$ oe improper fraction	**A1**	
	$7\frac{1}{3}$ cao final answer	**A1**	Dep on first **A1** If **M0** scored, **SC1** for $\frac{8}{3}$ or $\frac{11}{4}$ oe improper fraction

20 - (0980/11_Winter_2020_Q17)

	19 448.1[0] final answer	**2**	**M1** for $16\,000\,(1 + \frac{5}{100})^4$ oe

21 - (0980/12_Summer_2021_Q2)

	1, 2, 3, 6, 7, 14, 21, 42	**2**	**B1** for 6 correct, no errors or 7 correct and 1 error or all seen but 1 or 2 extra numbers or 1 × 42, 2 × 21, 3 × 14, 6 × 7

22 - (0980/12_Summer_2021_Q5)

	149	**2**	**M1** for 9 × 65 ÷ 5 [+32]

23 - (0980/12_Summer_2021_Q6)

(a)	9 + 35 − 2	**M1**	
	42	**A1**	
(b)	(9 + 5) × 7 – 4 ÷ 2 = 96 cao	**1**	

24 - (0980/12_Summer_2021_Q8)

(a)	13	**1**	
(b)	–5	**1**	

25 - (0980/12_Summer_2021_Q11)

	0.4 or $\frac{2}{5}$	**1**	