## Level 2 Essential Application of Number Skills Sample Confirmatory test 2

Maximum duration: 45 minutes

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Important note
This is a sample confirmatory test, developed jointly by the four Essential Skills
Wales awarding bodies (Agored Cymru, City & Guilds, Pearson and WJEC).
This sample test provides an indication of the format and structure of the live confirmatory tests that are available.
A separate document, containing the answer keys (correct answers) and specification references is also available.
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This confirmatory test consists of $\underline{\mathbf{2 0}}$ multiple choice questions.

## Questions 1 to 4 are about a swimming pool.

1 This graph shows the air and water temperatures of a swimming pool over one week.


The water temperature should be $1^{\circ} \mathrm{C}$ lower than the air temperature.
On which day was the water temperature exactly $1^{\circ} \mathrm{C}$ less than the air temperature?

| A | Wednesday |  |
| :--- | :--- | :--- |
| B | Thursday |  |
| C | Friday |  |
| D | Saturday |  |

2 There is also an outside pool. The table below shows the pool temperatures at midday over one week.

| Midday Outdoor Pool Temperatures $\left({ }^{\circ} \mathrm{C}\right)$ |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Monday | Tuesday | Wednesday | Thursday | Friday | Saturday | Sunday |  |
| 20.5 | 20.3 | 19.7 | 20.5 | 21.4 | 22.0 | 21.8 |  |

Water temperatures should be kept within a range of $2^{\circ} \mathrm{C}$.
What was the range of water temperatures in that week?

| A | $1.3^{\circ} \mathrm{C}$ |  |
| :--- | :--- | :--- |
| B | $2.3^{\circ} \mathrm{C}$ |  |
| C | $20.5^{\circ} \mathrm{C}$ |  |
| D | $22.0^{\circ} \mathrm{C}$ |  |

3 The pool is 20 metres long and 7 metres wide. The water is 1.2 metres deep.
A chemical is added to the water to keep it clean. This is the label on the container.

## Chloriclens

Add 5 ml for every cubic metre of water

How much of the chemical is added to the pool?

| A | 84 ml |  |
| :--- | :--- | :--- |
| B | 168 ml |  |
| C | 700 ml |  |
| D | 840 ml |  |

4 Every autumn, the pool is drained for maintenance. The water is drained out of the pool at 50 litres per minute.

## 1 litre = 0.001 cubic metres

How long will it take to drain 1 cubic metre of water from the pool?

| A | 50 minutes |  |
| :--- | :--- | :--- |
| B | 20 minutes |  |
| C | 5 minutes |  |
| D | 2 minutes |  |

## Questions 5 to 10 are about decorating

5 This formula can be used to calculate how many tiles are needed to cover a wall.

$$
\begin{aligned}
& \qquad \mathbf{n}=\frac{\mathbf{L h}}{\mathbf{S}^{\mathbf{2}}} \\
& \mathrm{n}=\text { = number of tiles } \\
& \mathrm{L}=\text { length of wall in metres } \\
& \mathrm{h}=\text { height of wall in metres } \\
& \mathrm{S}=\text { side length of the tile in metres }
\end{aligned}
$$

A wall is 1.5 metres long and 2.1 metres high.
It must be covered with square tiles with a side length of 0.3 metres.
How many tiles are needed to cover the wall?

| A | 11 |  |
| :--- | :--- | :--- |
| B | 29 |  |
| C | 35 |  |
| D | 40 |  |

6 A box of 8 square tiles costs $£ 12.50$
Each tile has a side length of 20 cm .
The tiles cannot be bought individually.
A decorator has to tile $1 \mathrm{~m}^{2}$ of wall.
He buys enough boxes of tiles for the job.
How much does he pay for the boxes of tiles?

| A | $£ 62.50$ |  |
| :--- | :--- | :--- |
| B | $£ 50$ |  |
| C | $£ 48$ |  |
| D | $£ 37.50$ |  |

7 Five litres of adhesive are needed for every $2 \mathrm{~m}^{2}$ of wall.
The wall is 6 metres long and 3.5 metres high.
How many litres of adhesive are needed?

| A | 8.4 litres |  |
| :--- | :--- | :--- |
| B | 12.6 litres |  |
| C | 35.0 litres |  |
| D | 52.5 litres |  |

8 The decorator buys a shower to install in a bathroom.
The shower cost $£ 140$ without VAT.
VAT is $20 \%$
How much does the shower cost with the VAT added?

| A | $£ 147$ |  |
| :--- | :--- | :--- |
| B | $£ 154$ |  |
| C | $£ 160$ |  |
| D | $£ 168$ |  |

9 This formula is used to calculate the total pay of a decorator.

$$
\mathrm{C}=1.1(\mathrm{Rh}+21)
$$

$\mathrm{C}=$ total $\operatorname{cost}(\mathfrak{£})$ $\mathrm{R}=$ rate per hour $(£)$ $h=$ number of hours

A decorator's hourly rate is $£ 12$ per hour.
He does 8 hours work.
What is his total pay?

| A | $£ 382.80$ |  |
| :--- | :--- | :--- |
| B | $£ 128.70$ |  |
| C | $£ 126.60$ |  |
| D | $£ 118.10$ |  |

10 A decorator works from 8:15 am to 4:30 pm a day for 5 days a week.
He has a one hour break each day.
What is the total time he works in a week?

| A | 31 hours 15 minutes |  |
| :--- | :--- | :--- |
| B | 33 hours 45 minutes |  |
| C | 36 hours 15 minutes |  |
| D | 41 hours 15 minutes |  |

## Questions 11 to 16 are about keeping fit.

11 This table shows some activities and the calories used over certain times.

| Activity | Time Spent | Calories Used |
| :--- | :--- | :---: |
| Swimming | 20 minutes | 230 |
| Walking | 30 minutes | 130 |
| Cycling | 1 hour | 550 |
| Jogging | 10 minutes | 100 |

Which activity uses the most calories in one hour?

| A | Swimming |  |
| :--- | :--- | :--- |
| B | Walking |  |
| C | Cycling |  |
| D | Jogging |  |

12 This is a different exercise programme.

| Type of exercise | Total time per week <br> (hours) |
| :---: | :---: |
| Walking | 5 |
| Jogging | $1 \frac{1}{2}$ |
| Cycling | $2 \frac{1}{2}$ |
| Swimming | $3 \frac{1}{2}$ |

What percentage of the total time exercising is spent cycling?

| A | $4 \%$ |  |
| :--- | :--- | :--- |
| B | $5 \%$ |  |
| C | $20 \%$ |  |
| D | $25 \%$ |  |

13 A cyclist rides for $2 \frac{1}{2}$ hours and covers 65 kilometres.
What is the average speed of the cyclist?

| A | $32.5 \mathrm{~km} / \mathrm{h}$ |  |
| :--- | :--- | :--- |
| B | $26.0 \mathrm{~km} / \mathrm{h}$ |  |
| C | $16.25 \mathrm{~km} / \mathrm{h}$ |  |
| D | $13.0 \mathrm{~km} / \mathrm{h}$ |  |

14 These are the times for 6 runners in a fun run.

| 70 mins | 52 mins | 58 mins | 62 mins | 52 mins | 54 mins |
| :--- | :--- | :--- | :--- | :--- | :--- |

What is the median time?

| A | 52 minutes |  |
| :--- | :--- | :--- |
| B | 56 minutes |  |
| C | 58 minutes |  |
| D | 60 minutes |  |

15 On one day a person runs 5.4 km .
For her next run she wants to increase the distance by a third.
What is the distance of her next run?

| A | 1.8 km |  |
| :--- | :--- | :--- |
| B | 5.7 km |  |
| C | 7.2 km |  |
| D | 8.4 km |  |

16 A person lifts a 12 pound kettlebell in an exercise session.


$$
1 \text { pound }=0.45 \mathrm{~kg}
$$

What is 12 pounds in kilograms (kg)?

| A | 5.4 kg |  |
| :--- | :--- | :--- |
| B | 11.6 kg |  |
| C | 12.45 kg |  |
| D | 26.7 kg |  |

## Questions 17 to $\mathbf{2 0}$ are about managing money.

17 This is a calendar for the first three months of the year.

| January |  |  |  |  |  |  | February |  |  |  |  |  |  | March |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| S | M | T | W | T | F | S | S | M | T | W | T | F | S | S | M | T | W | T | F | S |
|  |  | 1 | 2 | 3 | 4 | 5 |  |  |  |  |  | 1 | 2 |  |  |  |  |  | 1 | 2 |
| 6 | 7 | 8 | 9 | 10 | 11 | 12 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| 13 | 14 | 15 | 16 | 17 | 18 | 19 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 |
| 20 | 21 | 22 | 23 | 24 | 25 | 26 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 |
| 27 | 28 | 29 | 30 | 31 |  |  | 24 | 25 | 26 | 27 | 28 |  |  | 31 |  |  |  |  |  |  |

In the first week of January, Gwen starts saving for her holiday.
Every Thursday, she puts £25 into a bank account.
On what date will she have saved $£ 300$ ?

| A | 7 March |  |
| :--- | :--- | :--- |
| B | 14 March |  |
| C | 21 March |  |
| D | 28 March |  |

18 Gwen pays a bill for $\$ 186$ on the internet.
She uses this conversion rate:

$$
£ 2=\$ 3
$$

What is $\$ 186$ in pounds?

| A | $£ 64$ |  |
| :--- | :--- | :--- |
| B | $£ 96$ |  |
| C | $£ 124$ |  |
| D | $£ 279$ |  |

19 A TV can be purchased in different ways.

## Paying for your TV

Pay the total cost in
12 equal monthly payments
or
52 equal weekly payments

The monthly payments are £104 per month.
How much are the weekly payments to pay the same total cost?

| A | $£ 24$ |  |
| :--- | :--- | :--- |
| B | $£ 25$ |  |
| C | $£ 26$ |  |
| D | $£ 45$ |  |

20 Gwen pays $13 \%$ of her wages in tax.
Which fraction is closest to $13 \%$ ?

| A | $\frac{1}{8}$ |  |
| :--- | :--- | :--- |
| B | $\frac{1}{12}$ |  |
| C | $\frac{3}{20}$ |  |
| D | $\frac{3}{25}$ |  |

