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Essential Skills Wales	Centre Number	Candidate Number	
	<input type="text"/>	<input type="text"/>	
Essential Application of Number Skills			
Sample Set - Level 2 Confirmatory Test			
2016-2017 Time: 45 minutes			
You must have: Multiple choice answer sheet Black pen			
Instructions <ul style="list-style-type: none"> • Use black ink or ball-point pen. • Answer all questions. • Encircle your answers on the separate answer sheet. • Mark only one answer for each question. 			
Information <ul style="list-style-type: none"> • The total mark for this paper is 20. • Each question is worth 1 mark. 			
Advice <ul style="list-style-type: none"> • Read each question carefully before you start to answer it. • Try to answer every question. • Check your answers if you have time at the end. 			

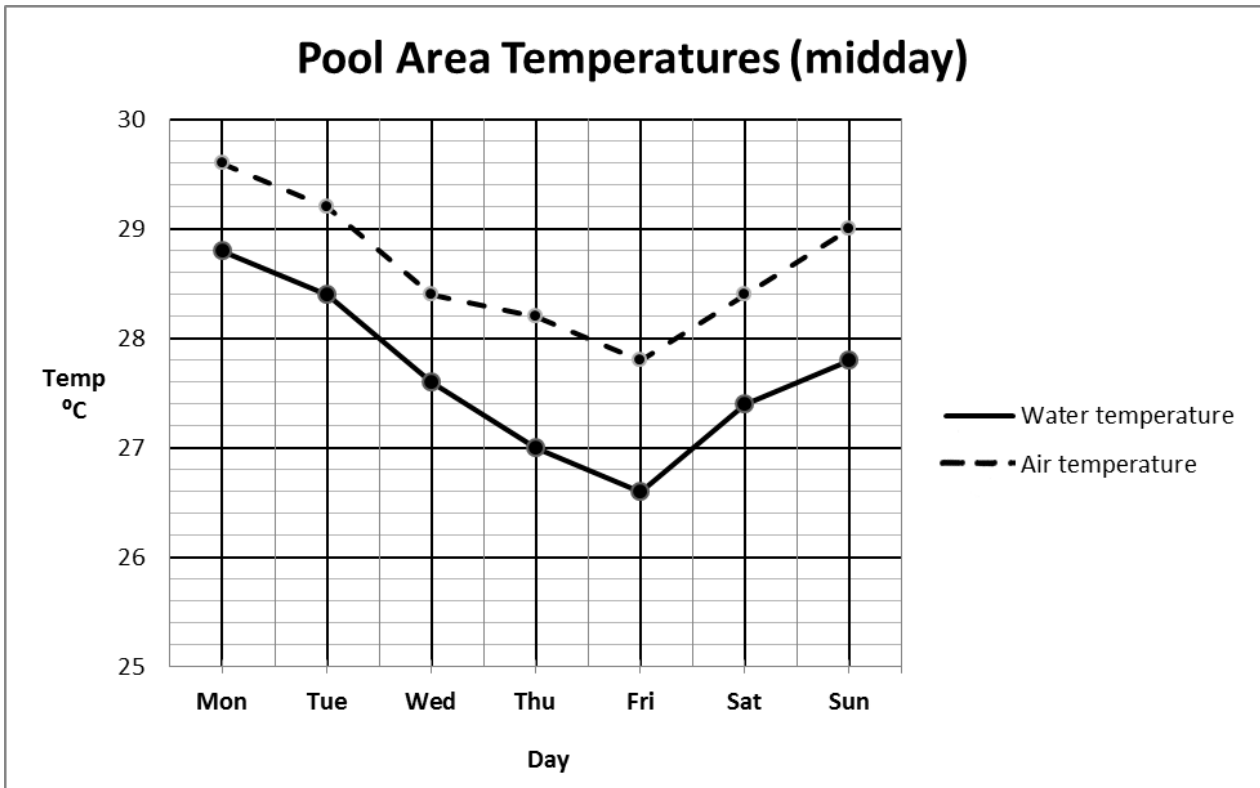
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 Agored Cymru
 City & Guilds
 Pearson
 WJEC

Turn over ►



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°C lower than the air temperature.

On which day was the water temperature exactly 1°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 ($^{\circ}\text{C}$)						
Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
20.5	20.3	19.7	20.5	21.4	22.0	21.8

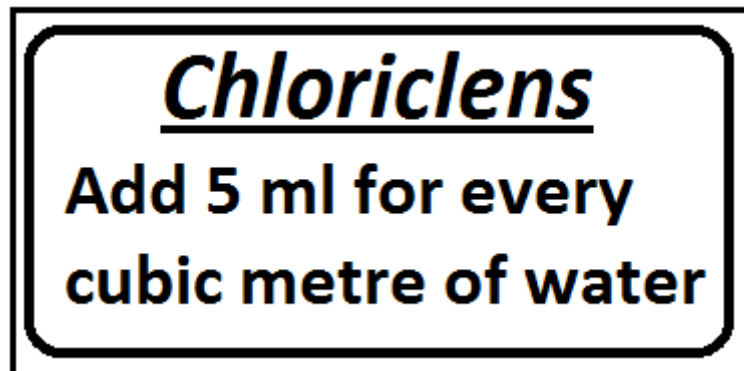
Water temperatures should be kept within a range of 2°C .

What was the range of water temperatures in that week?

A	1.3°C	
B	2.3°C	
C	20.5°C	
D	22.0°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.



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.

$$n = \frac{Lh}{S^2}$$

n = number of tiles

L = length of wall in metres

h = height of wall in metres

S = side length of the tile in metres

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 1m^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 2m^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.

$$C = 1.1 (Rh + 21)$$

C = total cost (£)

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 (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 km/h	
B	26.0 km/h	
C	16.25 km/h	
D	13.0 km/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
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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.



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

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 20 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
13	14	15	16	17	18	19	10	11	12	13	14	15	16	10	11	12	13	14	15	16
20	21	22	23	24	25	26	17	18	19	20	21	22	23	17	18	19	20	21	22	23
27	28	29	30	31			24	25	26	27	28			24	25	26	27	28	29	30
														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	$\frac{3}{25}$	

ANSWER SHEET

CANDIDATE
NUMBER:

CENTRE
ID

CANDIDATE
NAME:

Forename & Surname

SUBJECT:

**Essential Application of
Number Skills**

UNIT
CODE:

Level 2

SET NUMBER:

Sample Set

DATE:

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Signature

- | | | |
|-------------|-------------|-------------|
| 1. a b c d | 21. a b c d | 41. a b c d |
| 2. a b c d | 22. a b c d | 42. a b c d |
| 3. a b c d | 23. a b c d | 43. a b c d |
| 4. a b c d | 24. a b c d | 44. a b c d |
| 5. a b c d | 25. a b c d | 45. a b c d |
| 6. a b c d | 26. a b c d | 46. a b c d |
| 7. a b c d | 27. a b c d | 47. a b c d |
| 8. a b c d | 28. a b c d | 48. a b c d |
| 9. a b c d | 29. a b c d | 49. a b c d |
| 10. a b c d | 30. a b c d | 50. a b c d |
| 11. a b c d | 31. a b c d | 51. a b c d |
| 12. a b c d | 32. a b c d | 52. a b c d |
| 13. a b c d | 33. a b c d | 53. a b c d |
| 14. a b c d | 34. a b c d | 54. a b c d |
| 15. a b c d | 35. a b c d | 55. a b c d |
| 16. a b c d | 36. a b c d | 56. a b c d |
| 17. a b c d | 37. a b c d | 57. a b c d |
| 18. a b c d | 38. a b c d | 58. a b c d |
| 19. a b c d | 39. a b c d | 59. a b c d |
| 20. a b c d | 40. a b c d | 60. a b c d |

Correct Way to Answer

a b c d

Incorrect Way to Answer

a b c d

Altering an Incorrect Answer

a b c d

Only encircle answers which correspond to the questions
For TRUE or FALSE answers only columns a or b should be used