Functional Skills
Mathematics

Level 1

Topic:

Units of Measure
1. A weight-watcher weighs herself. The diagram shows the reading on the scales.

![Scales Diagram]

What is the reading on the scale?

A  93.5kg  
B  95.0kg  
C  97.0kg  
D  98.5kg

2. On a fine day with no wind, the temperature at a campsite is 3°C. It feels 1°C colder for every 10mph of wind. The temperature in a 20mph wind will feel like

A  —1°C  
B  1°C  
C  2°C  
D  5°C

3. The average distance a group of employees travel to work is estimated. Distance is measured in

A  kilograms  
B  kilometres  
C  hours  
D  litres
A darts competition starts at 6:25pm. The competition lasts for three and a quarter hours.

Which watch face displays the time that the competition ends?

A  Watch a
B  Watch b
C  Watch c
D  Watch d
5  There is a fuel tank in a car supermarket. The diagram shows the reading on the scale. How much fuel is in the tank?

A  6 350 litres
B  6 700 litres
C  7 150 litres
D  7 300 litres

6  A factory manager’s office measures 6 metres by 4 metres. The builder works out the floor area as 24 units. The unit for the floor area is

A  m
B  m²
C  m³
D  cm
7 The counter clerk in an office checks the weight of a letter.

The reading on the scale is

A  50.4g
B  50.7g
C  50.8g
D  51.2g

8 A cinema shows two films one after the other in a special “double bill”. This takes 3 hours.
One of the films lasts for 1 hour 50 minutes.
How long does the other film last?

A  1hr 10min
B  1hr 50min
C  2hr 10min
D  2hr 50min
9. The diagram shows the reading on the thermometer one day last summer. What is the reading?

   A  14°C
   B  18°C
   C  21°C
   D  22°C

10. A janitor is preparing a tank of cleaning fluid. Disinfectant is added in the ratio of 3 grams of disinfectant to every 2 litres of water in a tank. How much disinfectant is added to 300 litres of water?

    A  100g
    B  200g
    C  450g
    D  600g
11 A dressmaker measures a length of fabric. 
The diagram shows the reading on the tape measure.

What is the reading on the tape measure?
A 1 metre 2 centimetres
B 1 metre 4 centimetres
C 1 metre 20 centimetres
D 1 metre 40 centimetres

12 During a set of athletic trials, Rosie and Anuna compete in the long jump. 
The diagram shows the length of each girl’s jump.

Rosie’s jump was 3.9 metres.
How long was Anuna’s jump?
A 3.92m
B 3.94m
C 3.95m
D 3.97m
A customer buys a microwave oven and is given a free ready to cook meal. A diagram on the packet shows how long the meal takes to cook.

How long does the ready meal take to cook?

A  8mins 20secs
B  8mins 30secs
C  8mins 40secs
D  8mins 50secs
14. It takes 75 minutes for Richard to drive home from his job at an electrical superstore. The diagram shows the time on the clock in his car when he leaves the store.

What time does he arrive home?

A  3:55pm
B  5:55pm
C  6:25pm
D  7:25pm

15. Lily and Charles are going to see an ice skating show. The show starts at 7:30pm. It runs for 2 hours 35 minutes.

What time does it finish?

A  9:05pm
B  9:35pm
C  10:00pm
D  10:05pm
16  A carton of fudge weighs 220 grams.
Another unit for weighing is
A  millimetres
B  kilograms
C  kilometres
D  litres

17  Magazines are delivered to newsagents in packets of 10.
The weight of a packet is checked with a spring balance.
This diagram shows the reading.

What is the reading on the scale?
A  2kg 300g
B  2kg 333g
C  2kg 600g
D  3kg 700g

18  A baker weighs a small loaf.
A loaf can be weighed in
A  grams
B  centimetres
C  kilometres
D  litres
19. A cook measures out milk for a recipe for Broccoli Bake.

![Milk Measure Diagram]

How much milk is in the jug?

A  430ml  
B  460ml  
C  475ml  
D  525ml

20. The cook puts the Broccoli Bake in the oven at the time shown on the clock.

![Clock Diagram]

It takes 40 minutes to cook.

What time will the Broccoli Bake be cooked?

A  4:30  
B  5:10  
C  5:30  
D  11:05
21 A fish tank has a base area of 5 400 square centimetres. It can hold up to two fish per 1 000 square centimetres of base area. What is the maximum number of fish it can hold?

A  5  
B  10  
C  11  
D  27

22 The manager of a chip shop sets the temperature control on the chip fryer to 190°C. The diagram shows the temperature control.

Which position is 190°C?

A  position P  
B  position Q  
C  position R  
D  position S

23 Distance travelled is often measured in miles. Distance can also be measured in

A  kilobytes  
B  kilowatts  
C  kilograms  
D  kilometres
24   The diagram shows a car’s speedometer during part of a journey.
What speed does the diagram show?

A  46mph
B  47mph
C  55mph
D  57mph

25   In 1996 the average weekly working hours of full-time employees in the UK was 37.5
This is

A  37 hours 5 minutes
B  37 hours 12 minutes
C  37 hours 30 minutes
D  37 hours 50 minutes
Questions 26 to 28 are about building a garage.

26 The gap in the wall for the garage door needs to be 2.28 metres wide. Which of the arrows points to the correct measurement?

\[\text{A arrow P}\]
\[\text{B arrow Q}\]
\[\text{C arrow R}\]
\[\text{D arrow S}\]

27 The height of the garage door is 1.981 metres. What is this to the nearest centimetre?

\[\text{A 190cm}\]
\[\text{B 198cm}\]
\[\text{C 199cm}\]
\[\text{D 200cm}\]
28 The roofing sheets need to be 2.4 metres long. 
The builder uses the conversion graph below to work out the length of the sheets in feet.

What is 2.4 metres in feet?

A 0.7 feet  
B 7.0 feet  
C 7.8 feet  
D 8.0 feet
A woman checks the pressure in her car tyres with a pressure gauge. The diagram shows the reading on the pressure gauge.

The tyre pressure is

A  20.6 psi
B  26.0 psi
C  30.4 psi
D  34.0 psi
30 The organiser of a trip expects the journey to London to take 3.5 hours. The coach leaves Cardiff at 8:10am. Which clock face shows the expected arrival time in London?

A clock a
B clock b
C clock c
D clock d

31 The weight of a box of tiles can be measured in
A centimetres
B kilograms
C litres
D square metres
32 The temperature in a sauna is shown below.

The temperature in the sauna is

A 77.52°C  
B 77.6°C  
C 78.2°C  
D 78.4°C

33 Tyre pressure is measured in pounds per square inch (psi).
This table shows the correct tyre pressure for different cars.

<table>
<thead>
<tr>
<th>Car type</th>
<th>Tyre pressure (psi)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Front wheel</td>
</tr>
<tr>
<td>Ford Fiesta</td>
<td>35</td>
</tr>
<tr>
<td>Vauxhall Corsa</td>
<td>28</td>
</tr>
<tr>
<td>Volkswagen Polo</td>
<td>30</td>
</tr>
<tr>
<td>Ford Escort</td>
<td>32</td>
</tr>
<tr>
<td>Citroen ZX</td>
<td>32</td>
</tr>
<tr>
<td>Vauxhall Vectra</td>
<td>29</td>
</tr>
<tr>
<td>Ford Mondeo</td>
<td>30</td>
</tr>
</tbody>
</table>

What is the correct rear wheel tyre pressure for a Ford Escort?

A 26psi  
B 27psi  
C 30psi  
D 32psi
34. A woman checks her car tyre pressure. The line on the gauge shows the tyre pressure (psi).

The current tyre pressure is

A. 30.1 psi
B. 30.2 psi
C. 31 psi
D. 32 psi

35. A carer takes a child's temperature with a thermometer. The diagram shows the temperature reading.

The thermometer reads

A. 39.5°C
B. 39.7°C
C. 39.8°C
D. 40.3°C
36. A unit for measuring temperature is °C.

   The 'C' stands for

   A  calories
   B  ceritilitres
   C  centimetres
   D  celsius

37. A shopper arrives at a bus stop at 8:25am to go to a store.
    She waits until the bus arrives at 9:10am.

   How long does she wait for the bus?
   A  15 minutes
   B  45 minutes
   C  75 minutes
   D  85 minutes

38. A woman measures the width of a window with her tape measure.

   ![Reading on the tape measure]

   The diagram shows the reading on the tape.

   What is the width of the window?

   A  108.05cm
   B  108.5cm
   C  109.05cm
   D  109.5cm