1. Equations

Solve these equations.

$$
a+12=24
$$

$\qquad$
1 mark
$b-12=24$

1 mark
2. (a) The thermometer shows Alan's temperature.


Alan's normal temperature is $37.0^{\circ} \mathrm{C}$
How many degrees higher than normal is Alan's temperature?

(b) On Monday morning, Bina's temperature was $39.2^{\circ} \mathrm{C}$

By Tuesday morning, Bina's temperature had fallen by $1.3^{\circ} \mathrm{C}$
What was Bina's temperature on Tuesday morning?

(c) You can measure temperature in ${ }^{\circ} \mathrm{C}$ or in ${ }^{\circ} \mathrm{F}$

The diagram shows how to change ${ }^{\circ} \mathrm{F}$ to ${ }^{\circ} \mathrm{C}$


The highest temperature ever recorded in a human was $115.7^{\circ} \mathrm{F}$
What is this temperature in ${ }^{\circ} \mathbf{C}$ ? Show your working.
3. ABC

Work out the values of $a, b$ and $c$ in the number sentence below.
$3 \times 10+4=a$
$a=$ $\qquad$

1 mark
$3 \times 10+b=38$
$b=$ $\qquad$
1 mark
$c \times 10+12=52$
$c=$ $\qquad$

## 4. Temperatures

A book shows two ways to change ${ }^{\circ} \mathrm{C}$ to ${ }^{\circ} \mathrm{F}$

| exact rule |
| :---: |
| multiply the ${ }^{\circ} \mathrm{C}$ temperature by 1.8 |
| then add 32 |


| approximate rule |
| :---: |
| double the ${ }^{\circ} \mathrm{C}$ temperature |
| then add 30 |

(a) Fill in the gaps.


Using the exact rule, $25^{\circ} \mathrm{C}$ is $\qquad$ ${ }^{\circ} \mathrm{F}$

Using the approximate rule $25^{\circ} \mathrm{C}$ is $\ldots \ldots \ldots \ldots . .{ }^{\circ} \mathrm{F}$
(b) Fill in the gaps.


Using the exact rule, $0^{\circ} \mathrm{C}$ is $\qquad$ ${ }^{\circ} \mathrm{F}$

Using the approximate rule, $0^{\circ} \mathrm{C}$ is $\qquad$ ${ }^{\circ} \mathrm{F}$
(c) Show that at $10^{\circ} \mathrm{C}$, the exact rule and the approximate rule give the same answers.

