

## Fertility and temperature

**Skills: Numeracy, Interpreting**

About once a month, a fertile woman releases an egg from one of her ovaries. This is called *ovulation*. This egg then moves into the fallopian tubes where, for a period of 12–24 hours after ovulation, it is capable of being fertilised. If the egg is not fertilised it will disintegrate as it is no longer viable.

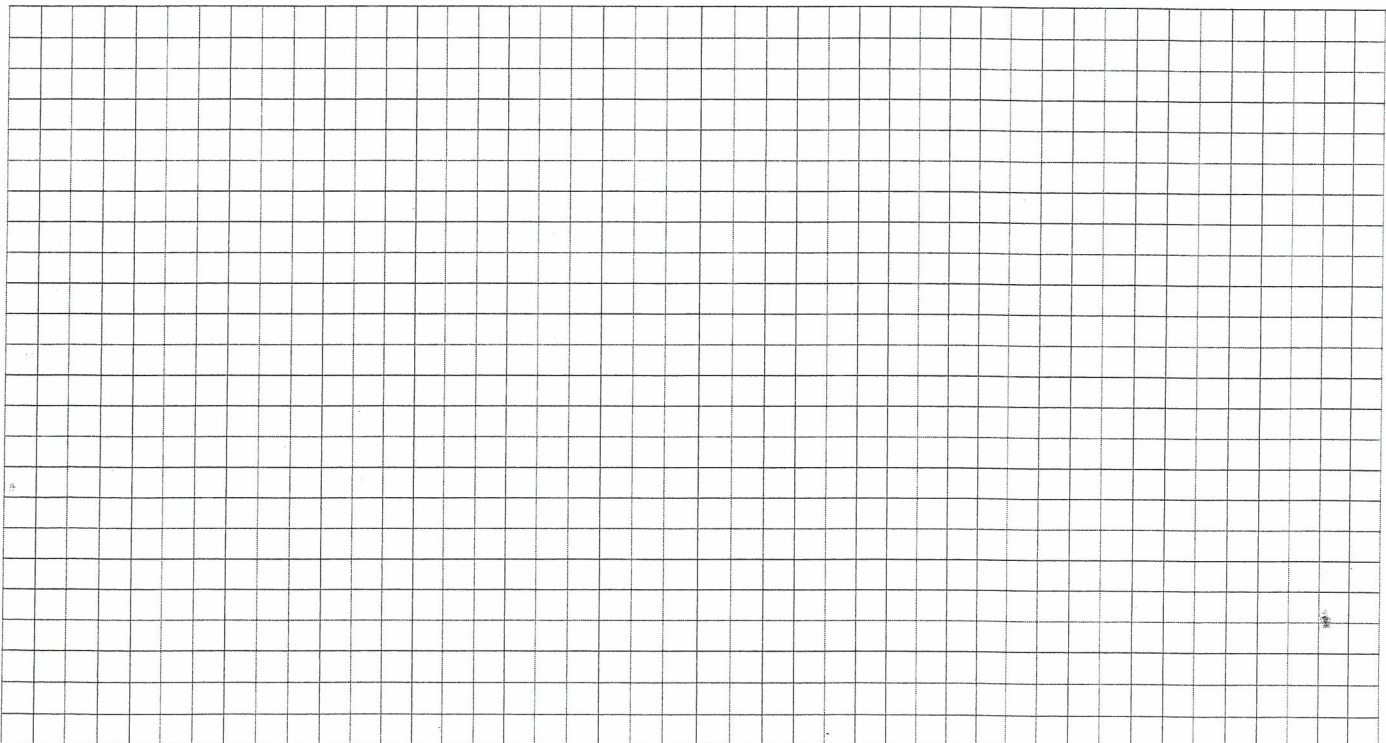
One way that a woman can tell when she has ovulated is by daily measurement of her basal body temperature. The day after ovulation her temperature will rise, indicating that ovulation has occurred. Body temperature remains high regardless of where the egg (or disintegrated egg) is on its journey. In most cases, the temperature remains at a higher level right up to the start of the next period. If pregnancy occurs, then the temperature remains high. To have a reduced risk of pregnancy, a woman must wait until she has had a sustained temperature rise of at least four consecutive days to ensure that ovulation has occurred and that the egg has disintegrated and is no longer able to be fertilised.

Day of month	Temperature (°C)
1	36.4
2	36.3
3	36.5
4	36.5
5	36.4
6	36.3
7	36.4
8	36.6
9	36.5
10	37.1
11	37.2
12	37.0
13	37.1
14	37.1
15	37.2

Day of month	Temperature (°C)
16	37.0
17	37.1
18	36.9
19	36.9
20	37.0
21	37.1
22	37.0
23	36.8
24	36.4
25	36.5
26	36.4
27	36.3
28	36.5
29	36.4
30	36.4

### Questions

- On the grid below, **construct** a graph using the data from the above table. Then, join the dots with straight lines.



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- 2 On your graph, indicate when the woman ovulated.
- 3 **Predict**, from the graph, on which days of the cycle the woman could have sex with a reduced risk of getting pregnant. Recall that sperm can survive in the female for up to six days before ovulation. The female must record at least four consecutive days of the higher temperatures to make allowance for late ovulation and to ensure that the egg no longer has the ability to be fertilised.

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### Extension

Conduct Internet research to answer the following questions.

**Identify** which country or countries of the world fit into the following categories. Give reasons for each answer.

- a greatest number of women who die in childbirth?

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- b greatest number of pregnancies per woman in her lifetime?

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- c greatest number of people using contraception (other than the rhythm method and withdrawal)?

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- d greatest access to contraception?

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