Mathematics

Delprov C

Årskurs

6

Elevens namn och klass/grupp

Skolverket

For the tasks in this part, you must clearly show your working. Your working must be clear enough so that another person can read and understand what you mean.

If you make calculations on the calculator they must be shown on the paper. You can be given points for partially solving a problem.

The teacher will assess:
- How you solve the problems.
- What knowledge you show about mathematical concepts.
- Which methods you choose and how you use them.
- How well you show your working.
- How well you use mathematical language.

You will meet Leo and Maja, who are brother and sister. Soon they will be going to Australia with their parents to visit their cousins. Of course they are curious and want to know more about Australia. They look at maps, read books and go online to find fun and interesting facts about the country, famous places and about the animals that live there.

When they arrive in Australia they are going to travel by train right across the country. Then later, they will be going to the coast and the sea. They will visit the rock Uluru and the Great Barrier Reef. It is a large area in the sea where you can find many rare plants and animals.

16. A giant kangaroo is 1.80 m tall. Maja is 143 cm tall. (2/0/0)
How much taller is the kangaroo?
Show your working.

17. Most towns in Australia have a sailing boat competition.
In Alice Springs, there is no water for sailing on.
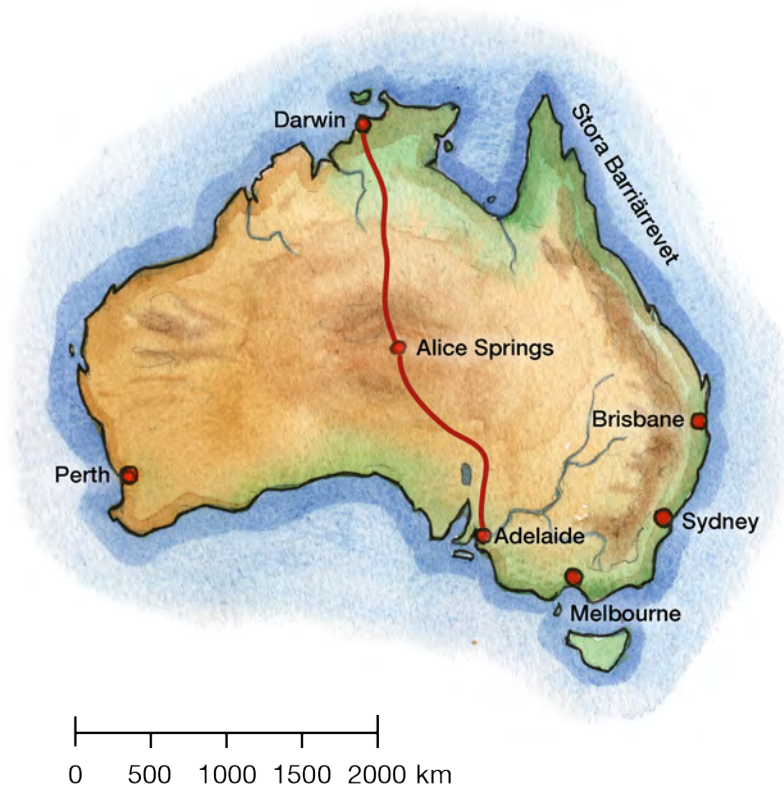Instead there is a competition where competitors
run with a boat, on land.

a) The first competition was 53 years ago. (2/0/0)
In which year was the first competition?
Show your working.

b) In one competition, there were 84 boats. Each boat had 6 people. (2/0/0)
How many people took part in the competition?
Show your working.

The Ghan train travels through the whole Australia.

0   500   1000 1500 2000 km

18. The journey with the train goes along the red line.

a) Approximately how long is the railway line between   (2/0/0)
    Darwin and Adelaide in real life?
    Show your working.

b) The train starts in Darwin on **Wednesday** at 12:20.   (1/2/0)
    The train reaches Adelaide on **Friday** at 17:30.
    How long does the journey take? Answer in hours and minutes.
    Show your working.

19. The biggest gold nugget ever found
in Australia contained 71 kg of pure gold.
How much was the gold nugget worth?
Show your working.

(1/1/0)

The price for 1 gram of pure gold was SEK 269.

20.

Photo: Anton Thisted

In Australia, they use feet and miles. 1 foot = 30.5 cm 1 mile = 1 609 m

Uluru is also called Ayers Rock

In Australia there is a famous rock.
It is called Uluru and is 1 142 feet high.
What is this height in metres?
Show your working.

(1/1/0)

21. The table shows the daytime and night-time temperatures at Uluru.

	Daytime	**Night-time**
Monday	37 °C	20 °C
Tuesday	44 °C	22 °C
Wednesday	37 °C	27 °C
Thursday	39 °C	23 °C
Friday	41 °C	**?** °C

a) What is the *median* daytime temperature?   (0/2/0)
Show your working.

b) The mean night-time temperature was 24 °C.   (0/1/1)
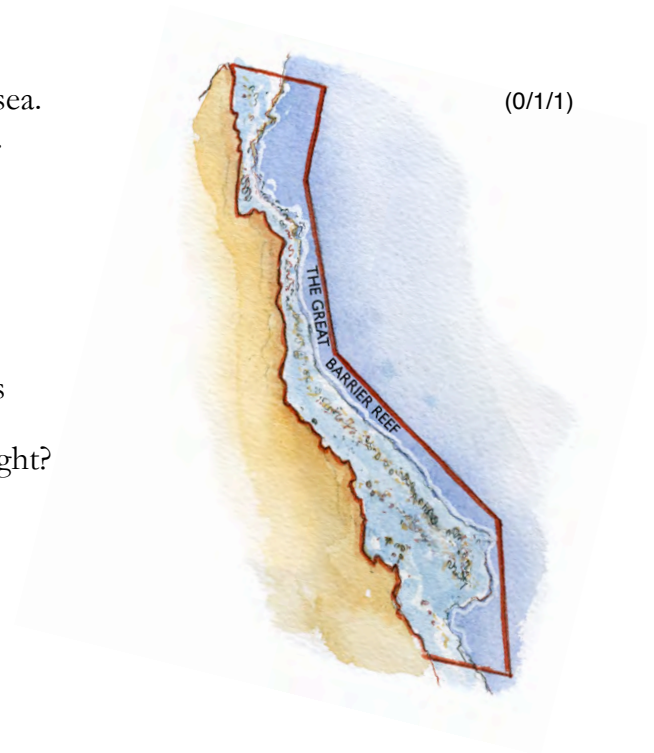What temperature was it on Friday night?
Show your working.

22. The Great Barrier Reef is a large area in the sea. Many animals and plants can be found there. (0/1/1)

> Sweden's area is 447 400 km^2
> The Great Barrier Reef's area is 344 400 km^2

Leo says that the Great Barrier Reef's area is approximately $\frac{3}{4}$ of Sweden's area. Is Leo right?

Explain your answer.

23. 817 people live in a village. 241 of them are children. (1/2/0)
Among the adults there are 56 more women than men in the village.
How many men live in the village?
Show your working.

24. a) The probability of winning the lottery is 20 %.   (1/1/0)
There are 25 winning tickets.
What is the total number of tickets in the lottery?
Show your working.

b) In another lottery the probability of winning is 10 %.   (0/1/2)
There are 450 losing tickets.
What is the total number of tickets in the lottery?
Show your working.

PRIM
gruppen