

## Application exercise: 2.2 Normal distribution

### SAT scores

SAT scores (out of 2400) are distributed normally with mean 1500 and standard deviation 300.

1. What percent of students score above 1900 on the SAT?
2. What percent of students score between 1900 and 2100 on the SAT?
3. Suppose a school council awards a certificate of excellence to all students who score at least 1900 on the SAT. What percent of the students who received this certificate scored below 2100?

*Hint:* This is a conditional probability.