## Percentages - Questions

Q1) a) The number of girls in a school increased by 5\% between 2015 and 2017. If the number of girls was 420 in 2017, how many girls were there in 2015?
b) Tom sold his one year old car for $£ 14,300$ which was a $15 \%$ decrease from what he paid for it. What was the original price of the car?
c) Peter sells his guitar to Sarah for $20 \%$ less than the $£ 245$ he paid for it. How much does Sarah pay for the guitar?
d) A special offer on lemonade means that customers get 10\% extra free. If this special offer bottle contains 600 ml , how much does a standard bottle contain?

Q2) a) Gary invests $£ 7,000$ for 4 years at $3.5 \%$ compound interest. How much compound interest was paid on his investment?
b) A ball is dropped from a building 125 m high. After each bounce it is at $25 \%$ of its previous height. Calculate the height of the ball after 4 bounces.
c) Joanne is considering an investment of $£ 700$ at $3 \%$ compound interest over 3 years. She wants to know how much more interest she'll earn than if the investment was simple interest. Calculate this value?
d) The population of a city is 245,000 in 2017. It is expected that the population will grow at $4 \%$ a year for the next 3 years. What will the population be in 2020?

## Percentages - Solutions

Q1) a) 400
b) $£ 16,824$
c) $£ 196$
d) 545 ml

Q2) a) $£ 1,033$
b) 39.55 m
c) She will earn $£ 2$ more interest if it is compounded.
d) 275,592

