Reverse Percentages

Worksheet 1

*To view the **lesson notes**, **tutorial(s)** and **answer key** for this worksheet: scan the **QR Code** in the upper right hand corner or **click on the link in the header** of this page.*

Showing all of your working solve each of the following reverse percentage problems.

1. Following a $20\,\%$ increase in price, a pair of shoes costs $\$\ 96$. How much did the shoes cost before their price was increased?

2. Following a $25\,\%$ decrease in price, Clara's gym class costs $\$\ 90$. How much did her gym class used to cost?

3. A few years ago Cathy decided to invest in property and bought an apartment. She has been very fortunate and its value has gone up by $24\,\%$ and is now worth $\$\ 198\ 400$. How much was Cathy's apartment worth when she bought it?

4. A clothes shop puts everything on sale with a $30\,\%$ discount. After looking around for a while, Charlotte buys a dress for $\$\ 84$. How much would she have had to pay if there hadn't been a discount?

5. Next month, the price of Benjamin's monthly bus ticket will increase by $6\,\%$ and will cost $\$\ 42.40$. How much does Benjamin's ticket currently cost?

6. Following a low sugar diet, as well as regular exercise, John reduced his weight by $8\,\%$ and now weighs 72 kg. Rounding your answer to the nearest kg, how much did John weigh before his diet?

7. Last fall, a highly selective university offered $6\,\%$ of its applicants a place. Given that the university accepted 540 students, find how many students applied.

8. From grade 8 to grade 9, the number of hours spent studying at home is expected to increase by $30\,\%$ to 14 hours a week. Rounding your answer to the nearest hour, find how many hours per week students are expected to study in grade 8.