

# Percentages on the Calculator

## Overview

This activity introduces students to the % button on their calculators and how to use it.

It is best done **after** students have gained confidence at some of the shortcut percentage calculation strategies.

## Skills and Knowledge

Calculating percentages using calculators.

## Preparation and Materials

Photocopy Practice Sheet 1:  
*Percentages on the Calculator* (1 for each student).

Calculators (1 per student)

Note: you cannot rely on students' mobile phone calculators for this exercise as many don't have a % functions.

## Suggested Procedure

### Introducing the activity

Suggest to the class that sometimes you need to be able to perform complicated percentage calculations exactly. For instance, if you are in a pay office and have to work out pay rises accurately.

The quickest, easiest and most accurate way is with a calculator.

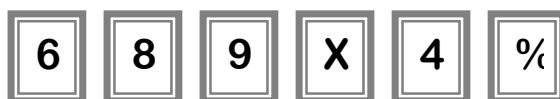
Ask:

- How would you go about calculating exactly 4% of \$689 on a calculator?

Distribute calculators and allow a few minutes for students to try out ideas.

Briefly acknowledge any ideas which lead to correct answers but go on to highlight the particular use of the % button.

On the board write this sequence of buttons for students to follow:



*For exact work a calculator is usually used.*

*There are many ways to calculate percentages using a calculator.*

*The % button is just one simple method, but most adults are curious about its use.*

*Discuss whether or not the = button needs to be pressed.*

*It might be optional for some calculators.*



## Checking by estimation

Encourage students to estimate also to ensure they are using a correct method.

For example: 4% of \$689:

*689 is approximately equal to 700*

*Either:*

*4% of 7 hundreds is  
 $7 \times 4 = \$28$ .*

*Or:*

*1% of \$700 = \$7  
4% is  $4 \times 7 = \$28$*

## Further examples

Try a few further examples together such as:

- *What would a 12% discount be on a \$739 television set?*  
[Answer: \$88.68]
- *What would be a 5% discount on a \$139 food bill?*  
[Answer: \$6.95]
- *What would a 2.5% increase on a salary of \$52,650 be?*  
[Answer: \$1,316.25]

Remember to model the checking by estimation process as well as the use of the calculator.

*Practice Sheet 1: Percentages on the Calculator* provides a few examples for students to practice.

## Other practice


Bring in some authentic advertisements which offer discounts expressed as percentages. Ask students to first estimate the discount and then use their calculators to calculate the exact discounts offered.

Look for newspaper articles which mention percentage increases in wages or profits. Estimate and calculate some of these amounts to highlight the significance of the articles.



# Percentages on the Calculator

## Activity Sheet 1

Use the  on your calculator to answer these.



1. A bed priced at \$575 is discounted by 12%. What is the discount?

$\approx$  approximate:

Exact answer using a calculator:

\_\_\_\_\_

2. A refrigerator costs \$955. How much will you save with a 17% discount?

$\approx$  approximate:

Exact answer using a calculator:

\_\_\_\_\_

3. Mina pays about \$195 for petrol each month. If petrol rises 3.5%.  
How much more will she pay?

$\approx$  approximate:

Exact answer using a calculator:

\_\_\_\_\_

3. Gregor gets \$695.30 every two weeks. If his pension rises by  $2\frac{1}{2}$  %  
How much extra will he get?

$\approx$  approximate:

Exact answer using a calculator:

\_\_\_\_\_

