

## Grade 8 Mathematics Worksheet

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### Fractions and percentages

#### Questions:

1. Sandra wants to copy her music files onto her iPod which can store 40Mb of data. She has the following files to store:

File	Size in kilobytes (kB)
A	3 280
B	2 428
C	15 280
D	19 875

\*1MB = 1 024kB

- a) Will she be able to fit all this data on her iPod? Explain.
- b) What percentage of the iPod will file C take up? (to the nearest %)

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### Solution

1. a) Total kilobytes:  $3\,280 + 2\,428 + 15\,280 + 19\,875 = 40\,863\text{kb}$   
 In Megabytes:  

$$\frac{40863}{1024} \text{Mb} = 39,91\text{Mb}$$
 She will just be able to fit the data on her iPod. There will be 97kB left over.
  
- b) 
$$\frac{15280}{1024} \text{Mb} = 14,922\text{Mb}$$
 . So then the fraction of space taken up by file C will be:  

$$\frac{14,922}{40} \times 100 = 0,37305 \times 100 = 37\%$$

The choice is left to the learner to work in kilobytes or to work in megabytes.