Student Activity: Comparing Percentages

Use in connection with the interactive file, 'Comparing Percentages', on the Student's CD.

1. Represent the following percentages on the number lines provided and in each case state which is bigger and why?

   (a) 40% and 50%

   0% ─────────────────────────────── 100%

   Reason:

   _____

   (b) 99% and 9.9%

   0% ─────────────────────────────── 100%

   Reason:

   _____

   (c) 75% and 57%

   0% ─────────────────────────────── 100%

   Reason:

   _____

   (d) 33.3% and the fraction $\dfrac{1}{3}$

   0% ─────────────────────────────── 100%

   Reason:

   _____

   (e) 89% and 98%

   0% ─────────────────────────────── 100%

   Reason:

   _____

2. Which would you prefer 25% or ⅔ of your favourite cake?
   Explain your reason.

   _____

3. Noel ate 30% of a cake and then gave 25% of the remaining cake to his friend.
   (a) What percentage of the whole cake was eaten?

   _____

   (b) What percentage of the whole cake was left over?

   _____

4. Martha got 56% in her maths exam and Joe got ⅗ of the questions right in the same exam. Which student did best and why?

_____

5. Cynthia got 45 marks in a test where the total marks were 50 and Lorna got 21 marks in a test where the total marks were 25. Which student did best in their tests assuming the tests were of the same standard?

_____

_____

6. Danny ate 40% of a bag of sweets and then gave his friend 50% of the remaining sweets. Assuming there was 40 sweets in the bag:
   (a) How many sweets did Danny eat? Explain your answer.

   _____

   _____

   (b) How many sweets did his friend eat? Explain your answer.

   _____

   _____

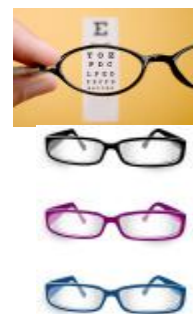   (c) How many sweets were left over? Explain your answer.

   _____

   _____

7. A class consists of 15 girls and 10 boys. five of the girls wear glasses and two of the boys wear glasses:
   (a) What percentage of the class are girls? Explain your reason.

   _____

   _____

   (b) What percentage of the class are boys? Explain your reason.

   _____

   _____

(c) What percentage of the girls wears glasses? Explain your reason.

_____

_____

(d) What percentage of the class wears glasses? Explain your reason.

_____

_____

(e) In another class in the same school 10% of the students cycle to school and it is also known that 27 of the students in the same class do not cycle to school. How many students are in this class?

_____

_____

8. Given 1 whole unit equals 100%.
   (a) What percentage is in 2 whole units?

_____

   (b) What percentage is in $2\dfrac{1}{2}$ whole units?

_____

9. Is 40% of €400 greater or less than 0.75 of €200? Give a reason for your answer.

_____

_____

10. If $\dfrac{Part}{Whole} = \dfrac{Percentage}{100}$ answer the following questions:
    (a) What is 12% of 250?

_____

    (b) 25 is 40% of what?

_____

    (c) 72 is what percent of 150?

_____