FRACTIONS 2

1) Michael is 160cm tall and his brother Peter is 7/8 as tall as him. How tall is Peter?

2) Last year, my mother weighed 63 kg. This year she weighs 2/7 more. How much does my mother weigh this year?

3) McDonalds sell milkshakes in two sizes. A small milkshake contains 300ml and a large milkshake contains 2/3 more.
(a) How much does a large milkshake contain?
(b) If Anna drinks 2/3 of a small milkshake and Martha 1/2 of a large milkshake who drinks the most?

4) A teacher has marked 2/7 of his exams with a red marker and 1/4 with a blue one. If he still has 52 exams to mark, how many exams did he start with?

5) A boy had ninety comics. He gave two fifths to his father and 2/15 to a friend. How many comics did he have left?

6) Three friends bought a present. The first one gave 2/7 of the total; the second one paid 3/5 of the remainder and the third one had to pay 40 euros. How much was the present and how much did each friend pay?

SOLUTIONS

1) Michael is 160cm tall and his brother Peter is 7/8 as tall as him. How tall is Peter?

$\frac{7}{8}$ of $160 = \frac{7 \cdot 160}{8} = 7 \cdot 20 = 140$ Peter is 140cm tall

2) Last year, my mother weighed 63 kg. This year she weighs 2/7 more. How much does my mother weigh this year?

$\frac{2}{7}$ of $63 = 18kg \rightarrow 63 + 18 = 81$ My mother weighs 81 kg this year

3) McDonalds sell milkshakes in two sizes. A small milkshake contains 300ml and a large milkshake contains 2/3 more.

(a) How much does a large milkshake contain?

$\frac{2}{3}$ of $300 = 2 \cdot 100 = 200 \rightarrow 300 + 200 = 500$

A large milkshake contains 500ml

(b) If Anna drinks 2/3 of a small milkshake and Martha 1/2 of a large milkshake who drinks the most?

Anna: $\frac{2}{3}$ of $300 = 2 \cdot 100 = 200\,ml$ Martha: $\frac{1}{2}$ of $500 = 250ml$

Martha drinks the most

4) A teacher has marked 2/7 of his exams with a red marker and 1/4 with a blue one. If he still has 52 exams to mark, how many exams did he start with?

$\frac{2}{7} + \frac{1}{4} = \frac{8}{28} + \frac{7}{28} = \frac{15}{28}$ He has marked

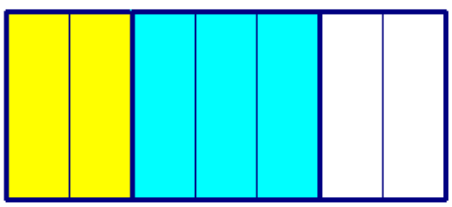
$\frac{13}{28}$ he has to mark = $52 \rightarrow 52 \cdot 28 = 1456 \rightarrow 1456 \div 13 = 112$

He starts with 112 exams

5) A boy had ninety comics. He gave two fifths to his father and 2/15 to a friend. How many comics did he have left?

$\frac{2}{5} + \frac{2}{15} = \frac{6+2}{15} = \frac{8}{15}$ He had left $\frac{7}{15}$ of $90 = \frac{7 \cdot 90}{15} = 42$ comics

6) Three friends bought a present. The first one gave 2/7 of the total; the second one paid 3/5 of the remainder and the third one had to pay 40 euros. How much was the present and how much did each friend pay?



The first one: 2/7 (yellow)
The second one: 3/5 of the remainder (bleu)
The third one: $40 \rightarrow 20$ every rectangle
The present was $20 \cdot 7 = 140$ euros
Each friend pays: 40, 60 and 40