Real-life problems

In a class of 30 children, 6 children are painting. What percent of children are painting?

$\frac{6}{30}$ of the children are painting and to change a fraction to a percent we multiply by 100.

20%

$\frac{\overset{1}{\cancel{6}}}{\underset{1}{\cancel{30}_{5}}} \times \overset{20}{\cancel{100}} = 20$

40% of a class is made up of girls. If there are 12 girls, how many children are in the class?

If 12 girls are 40% of the class, we divide 12 by 40 to find 1%. Then we multiply by 100 to find 100%.

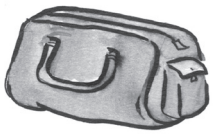
30 children

$\frac{\overset{3}{\cancel{12}}}{\underset{1}{\cancel{40}_{\cancel{10}}}} \times \overset{10}{\cancel{100}} = 30$

A shop has 60 books by a new author. If the shop sells 45 books, what percent does it sell?

A school disco sells 65% of its tickets. If it had 120 tickets to start with, how many has it sold?

200 people go on a school trip. If 14% are adults, how many children go on the trip?



A shop sells 150 T-shirts but 12 are returned because they are faulty. What percent of the T-shirts was faulty?

A group of 120 children are asked their favorite colors.

15% like red. How many children like red?

20% like green. How many children like green?

30% like yellow. How many children like yellow?

35% like blue. How many children like blue?

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30 children

$\frac{\overset{3}{\cancel{12}}}{\underset{1}{\cancel{40}}} \times \overset{10}{\cancel{100}} = 30$

A shop has 60 books by a new author. If the shop sells 45 books, what percent does it sell?

75%

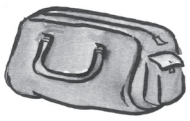
$\frac{\overset{3}{\cancel{45}}}{\underset{1}{\cancel{60}}} \times \overset{25}{\cancel{100}} = 75$

A school disco sells 65% of its tickets. If it had 120 tickets to start with, how many has it sold?

78 tickets

$\frac{\overset{6}{\cancel{120}}}{\underset{1}{\cancel{100}}} \times \overset{13}{\cancel{65}} = 78$

200 people go on a school trip. If 14% are adults, how many children go on the trip?



172 children

$100 - 14 = 86\ \%$

$\overset{2}{\cancel{200}} \times 86 = 172$

$\cancel{100}$

A shop sells 150 T-shirts but 12 are returned because they are faulty. What percent of the T-shirts was faulty?

8%

$\frac{\overset{4}{\cancel{12}}}{\underset{1}{\cancel{150}}} \times \overset{2}{\cancel{100}} = 8$

$\cancel{50}$

A group of 120 children are asked their favorite colors.

15% like red. How many children like red?

18

20% like green. How many children like green?

24

30% like yellow. How many children like yellow?

36

35% like blue. How many children like blue?

42

$\frac{\overset{6}{\cancel{120}}}{\underset{1}{\cancel{100}}} \times \overset{3}{\cancel{15}} = 18$

$\frac{\overset{6}{\cancel{120}}}{\underset{1}{\cancel{100}}} \times \overset{4}{\cancel{20}} = 24$

$\frac{\overset{6}{\cancel{120}}}{\underset{1}{\cancel{100}}} \times \overset{6}{\cancel{30}} = 36$

$\frac{\overset{6}{\cancel{120}}}{\underset{1}{\cancel{100}}} \times \overset{7}{\cancel{35}} = 42$

In questions 1 and 4, children should see that the answer can be expressed as a fraction, which can then be converted to a percentage by multiplying by 100.