

1 How many small squares in each shape? \_\_\_\_\_

2 Write the number coloured in each shape as a fraction and a decimal.

a  $\frac{10}{100} = 0.10$     b  $\frac{\quad}{100} = \frac{\quad}{\quad}$     c  $\frac{\quad}{100} = \frac{\quad}{\quad}$     d  $\frac{\quad}{100} = \frac{\quad}{\quad}$     e  $\frac{\quad}{100} = \frac{\quad}{\quad}$

f  $\frac{\quad}{100} = \frac{\quad}{\quad}$     g  $\frac{\quad}{100} = \frac{\quad}{\quad}$     h  $\frac{\quad}{100} = \frac{\quad}{\quad}$     i  $\frac{\quad}{100} = \frac{\quad}{\quad}$     j  $\frac{\quad}{100} = \frac{\quad}{\quad}$

k  $\frac{\quad}{100} = \frac{\quad}{\quad}$     l  $\frac{\quad}{100} = \frac{\quad}{\quad}$     m  $\frac{\quad}{100} = \frac{\quad}{\quad}$     n  $\frac{\quad}{100} = \frac{\quad}{\quad}$     o  $\frac{\quad}{100} = \frac{\quad}{\quad}$

3 Write the decimals in ascending order.

\_\_\_\_\_

\_\_\_\_\_

4 Write: a the largest fraction. \_\_\_\_\_ b the smallest fraction. \_\_\_\_\_

# Percentages

Percent  
means out of 100.

5% is  $\frac{5}{100}$

37% is  $\frac{37}{100}$

- 1 Express each of the diagrams on page 54 as a fraction and a percentage.

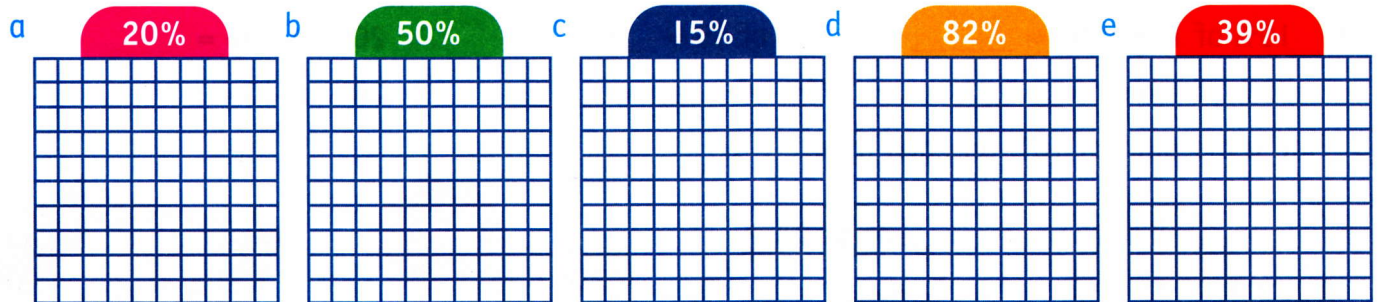
a  $\frac{10}{100} = 10\%$     b  $\frac{\quad}{100} = \quad$     c  $\frac{\quad}{100} = \quad$     d  $\frac{\quad}{100} = \quad$     e  $\frac{\quad}{100} = \quad$

f  $\frac{\quad}{100} = \quad$     g  $\frac{\quad}{100} = \quad$     h  $\frac{\quad}{100} = \quad$     i  $\frac{\quad}{100} = \quad$     j  $\frac{\quad}{100} = \quad$

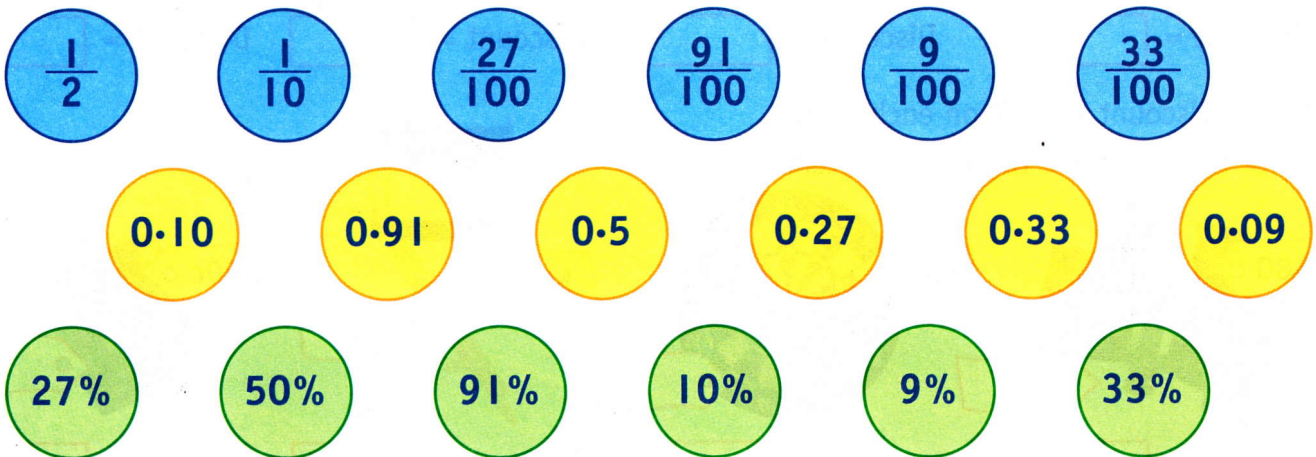
k  $\frac{\quad}{100} = \quad$     l  $\frac{\quad}{100} = \quad$     m  $\frac{\quad}{100} = \quad$     n  $\frac{\quad}{100} = \quad$     o  $\frac{\quad}{100} = \quad$

- 2 Write the percentages in descending order.

- 3 Colour to show:



- 4 Draw lines to match a fraction to its decimal and percentage.



## Draw a diagram

Draw diagrams to help you complete these.

$\frac{1}{5} = \quad\% \quad$

$\frac{1}{4} = \quad\% \quad$

$\frac{1}{20} = \quad\% \quad$

$\frac{7}{10} = \quad\% \quad$

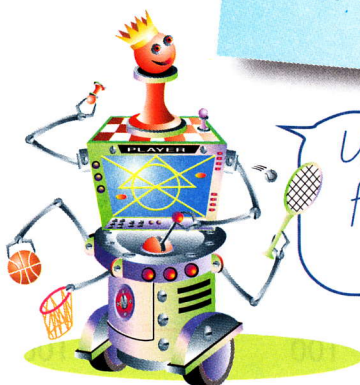
$\frac{3}{4} = \quad\% \quad$

# Using percentages

## Finding a percentage

$$25\% \text{ of } \$1 = \frac{25}{100} \text{ of } 100c = 25c$$

$$12\% \text{ of } 1 \text{ m} = \frac{12}{100} \text{ of } 100 \text{ cm} = 12 \text{ cm}$$



Use these common fractions to help solve problems.

%	$\frac{\quad}{100}$	Common fraction
a 50%	$\frac{50}{100}$	$\frac{1}{2}$
b 25%		
c 75%		
d 10%		
e 20%		

- 2 a 50% of \$1 = \_\_\_\_\_ b 50% of 1 hour = \_\_\_\_\_ c 50% of 1 year = \_\_\_\_\_  
 d 50% of 1 m = \_\_\_\_\_ e 25% of 1 day = \_\_\_\_\_ f 25% of \$4 = \_\_\_\_\_  
 g 25% of 1 hour = \_\_\_\_\_ h 25% of 1 dozen = \_\_\_\_\_ i 10% of \$1 = \_\_\_\_\_  
 j 10% of 1 century = \_\_\_\_\_ k 20% of \$5 = \_\_\_\_\_ l 20% of 1 m = \_\_\_\_\_  
 m 75% of 1 hour = \_\_\_\_\_ n 75% of 1 year = \_\_\_\_\_ o 75% of 40 = \_\_\_\_\_

- 3 Find a discount of 10% on each item.



Discount =



Discount =



Discount =

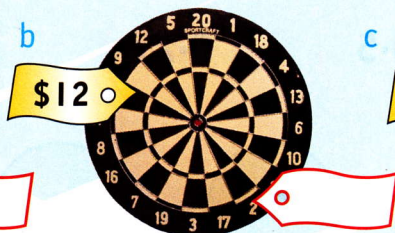


Discount =

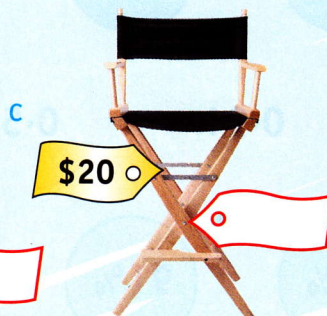
- 4 Find a discount of 25% on each item.  
Write the new price tag for each item.



Discount =



Discount =



Discount =



Discount =

## Challenge! Find the total if:

- a 10% is \$2  b 50% is 7 days  c 20% is 6 minutes   
 d 25% is 25 cm  e 25% is \$2.20  f 75% is 9 months   
 g 100% is \$8.50  h 1% is 3c  i 4% is 80 cm