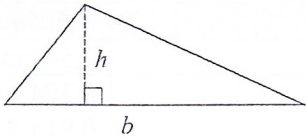
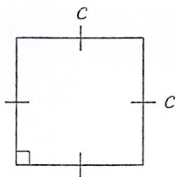
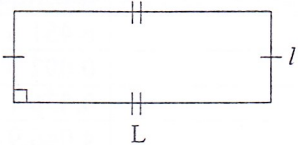
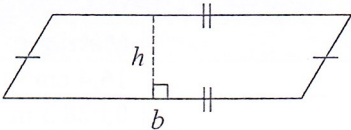
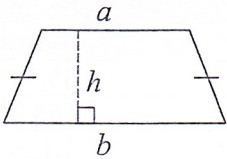
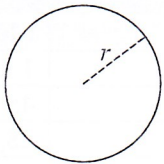


# Mathématiques au quotidien 10 - Formules

## Aire des figures à deux dimensions

Figure	Diagramme	Formule
triangle	 A diagram of a triangle with a horizontal base labeled 'b'. A vertical dashed line from the top vertex to the base represents the height, labeled 'h'. A right-angle symbol is shown at the intersection of the height and the base.	$A = \frac{1}{2}bh$
carré	 A diagram of a square with side length 'c'. All four sides are marked with single tick marks to indicate they are equal. A right-angle symbol is shown in the bottom-left corner.	$A = c^2$
rectangle	 A diagram of a rectangle with length 'L' and width 'l'. Opposite sides are marked with double tick marks (top and bottom) and single tick marks (left and right). A right-angle symbol is shown in the bottom-left corner.	$A = Ll$
parallélogramme	 A diagram of a parallelogram with base 'b' and height 'h'. The top and bottom sides are marked with double tick marks, and the left and right sides with single tick marks. A vertical dashed line from the top side to the base represents the height, labeled 'h'. A right-angle symbol is shown at the intersection of the height and the base.	$A = bh$
trapèze	 A diagram of a trapezoid with parallel top side 'a' and bottom side 'b'. The left and right sides are marked with single tick marks. A vertical dashed line between the parallel sides represents the height, labeled 'h'. A right-angle symbol is shown at the intersection of the height and the bottom side.	$A = \frac{1}{2}(a + b)h$
cercle	 A diagram of a circle with a dashed line from the center to the circumference representing the radius, labeled 'r'.	$A = \pi r^2$

# Conversions

Longueur	
Métrique	Impérial
1 millimètre (mm)	0,039 4 po
1 centimètre (cm) 10 mm	0,393 7 po
1 mètre (m) 100 cm	1,093 6 vg
1 kilomètre (km) 1 000 m	0,621 4 mi
Impérial	Métrique
1 pouce (po)	2,54 cm
1 pied (pi) 12 po	0,304 8 m
1 verge (vg) 3 pi	0,914 4 m
1 mille (1 760 vg)	1,609 3 km
1 mille marin (2 025,4 vg)	1,852 km (1 852 m)
Aire	
Métrique	Impérial
1 cm <sup>2</sup> 100 mm <sup>2</sup>	0,155 0 po <sup>2</sup>
1 m <sup>2</sup> 10 000 cm <sup>2</sup>	1,196 0 vg <sup>2</sup>
1 hectare (ha) 10 000 m <sup>2</sup>	2,471 1 acres
1 km <sup>2</sup> (100 ha)	0,386 1 mi <sup>2</sup>
Impérial	Métrique
1 po <sup>2</sup>	6,451 6 cm <sup>2</sup>
1 pi <sup>2</sup> 144 po <sup>2</sup>	0,092 9 m <sup>2</sup>
1 vg <sup>2</sup> 9 pi <sup>2</sup>	0,836 1 m <sup>2</sup>
1 acre (4 840 vg <sup>2</sup> )	4 046,9 m <sup>2</sup>
1 mille <sup>2</sup> (640 acres)	2,59 km <sup>2</sup>
Volume	
Impérial	Métrique
1 pouce <sup>3</sup>	16,4 cm <sup>3</sup>
1 pied <sup>3</sup> (1 728 po <sup>3</sup> )	0,028 3 m <sup>3</sup>
1 vg <sup>3</sup> (27 pi <sup>3</sup> )	0,765 m <sup>3</sup>
Capacité	
Impérial	Métrique
1 once liquide	35,52 millilitres (mL)
1 chopine (16 onces liquides)	568,26 millilitres (mL)
1 pinte (2 chopines)	1,136 5 litres (L)
1 gallon (4 pintes)	4,546 litres (L)
Masse	
Impérial	Métrique
2,2 livres (lb)	1 kilogramme (Kg)
1 livre (lb) (16 onces)	454 grammes (g)
1 once (oz)	28,4 grammes (g)

## Formules

### *Conversion*

Celsius à Fahrenheit  $F = \frac{9}{5}C + 32$

Fahrenheit à Celsius  $C = \frac{5}{9}(F - 32)$

### *Géométrie*

circonférence =  $2\pi r$

diamètre =  $2r$

Théorème de Pythagore

$$c^2 = a^2 + b^2$$

### *Trigonométrie*

$$\sin \theta = \frac{\textit{opposé}}{\textit{hypothénuse}}$$

$$\cos \theta = \frac{\textit{adjacent}}{\textit{hypothénuse}}$$

$$\tan \theta = \frac{\textit{opposé}}{\textit{adjacent}}$$