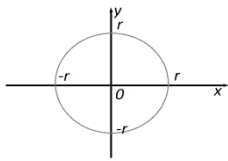


GRAPHS

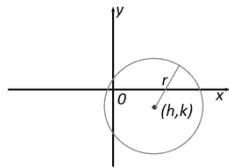
MORE CURVES AND EQUATIONS

CIRCLE



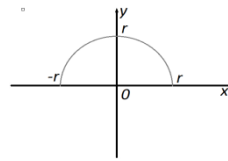
Centre the origin, radius r
 $x^2 + y^2 = r^2$

CIRCLE



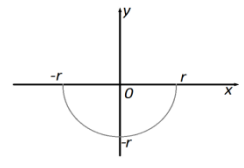
Centre (h,k) , radius r
 $(x - h)^2 + (y - k)^2 = r^2$

SEMICIRCLE



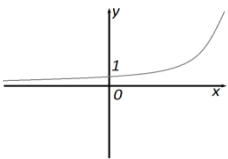
Centre $(0,0)$, radius r
 $y = \sqrt{r^2 - x^2}$

SEMICIRCLE



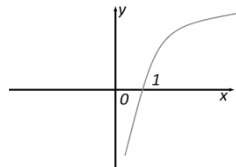
Centre $(0,0)$, radius r
 $y = -\sqrt{r^2 - x^2}$

EXPONENTIAL



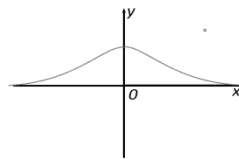
$y = e^x, y = 2^x, y = 3^x, \dots$

LOGARITHMIC



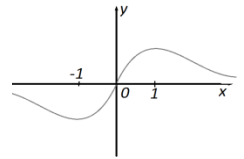
$y = \log_e x, y = \ln x,$
 $y = \log_a x$

BELL SHAPED



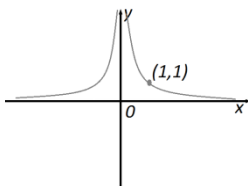
$y = \frac{1}{1 + x^2}$

SERPENTINE



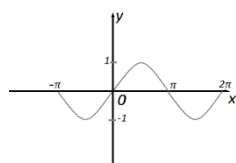
$y = \frac{x}{1 + x^2}$

$\frac{1}{x^2}$



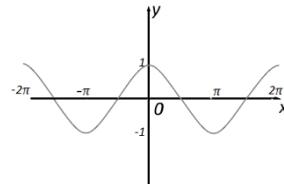
$y = \frac{1}{x^2}$

SINE CURVE



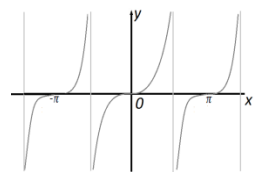
$y = \sin x, -\pi < x < 2\pi$

COSINE CURVE



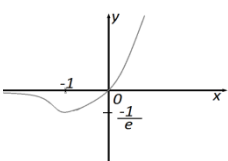
$y = \cos x, -2\pi < x < 2\pi$

TAN CURVE



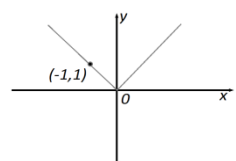
$y = \tan x, -\frac{3\pi}{2} < x < \frac{3\pi}{2}$

COMBINATION CURVE



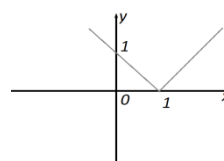
$y = xe^x$

ABSOLUTE VALUE



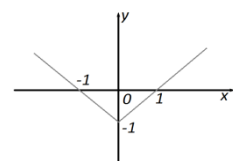
$y = |x|$
 π

ABSOLUTE VALUE



$y = |x - 1|$

ABSOLUTE VALUE



$y = |x| - 1$

MATHS REFERENCE SHEET COLLECTION

A reference sheet for the
hawkermaths.com
 senior maths program

Mathematical Methods
 Specialist Mathematics

