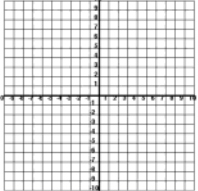📄 C_01 Common Graphs tables and mapping
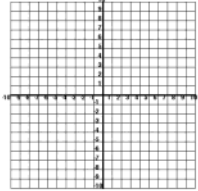
📄 C_01 Common Graphs tables and mapping
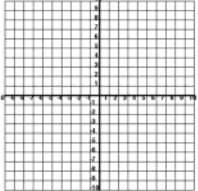
1

Common Graphs

Constant Function (a special type of linear function)
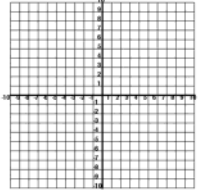
$y = c$

For example, $y = 5$

Linear function

$y = mx + b$

For example, $y = \frac{2}{5}x + 4$

Vertical line (NOT a f unction)
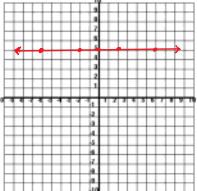
$x = c$
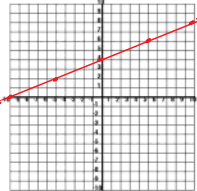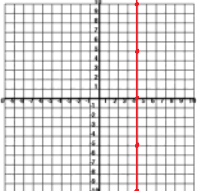
For example, $x = 4$

Cubic functions

$y = x^3$

1

Common Graphs

Constant Function (a special type of linear function)

$y = c$

For example, $y = 5$

Linear function

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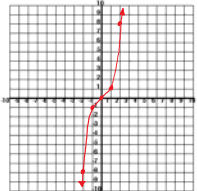| X	y
-6	5
-2	5
0	5
2	5
6	5

X	y
-10	0
-5	2
0	4
5	6
10	8

Vertical line (NOT a f unction)

$x = c$

For example, $x = 4$
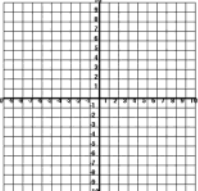
Cubic functions

$y = x^3$

X	y
4	-10
4	-5
4	0
4	5
4	10

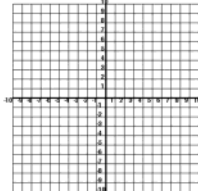| x	y
-2	-8
-1	-1
0	0
1	1
2	8

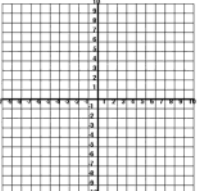
2

Quadratic functions (BASE)
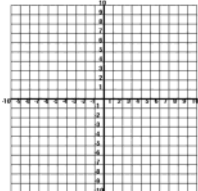
$y = x^2$ mapping:

Quadratic functions (translated)
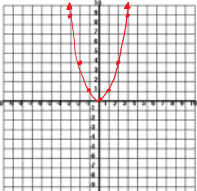
$y = (x+5)^2 - 3$

Radical functions (BASE)

$y = \sqrt{x}$ mapping:
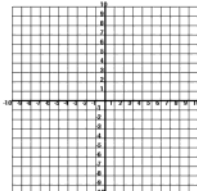
Radical functions (translated)

$y = \sqrt{x-4} + 3$
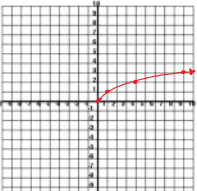

2

Quadratic functions (BASE)

$y = x^2$ mapping:

Quadratic functions (translated)

$y = (x+5)^2 - 3$

X	y
-3	9
-2	4
-1	1
0	0
1	1
2	4
3	9

Radical functions (BASE)

$y = \sqrt{x}$ mapping:

Radical functions (translated)

$y = \sqrt{x-4} + 3$

X	y
0	0
1	1
4	2
9	3

3

Exponential functions (BASE)
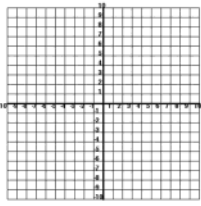
Exponential functions (translated)

3

Exponential functions (BASE)

Exponential functions (translated)
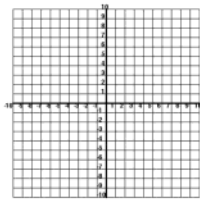
Exponential functions (BASE)
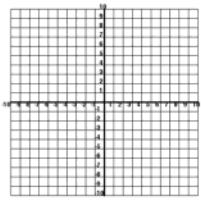
$y = 2^x$

mapping:

Exponential functions (translated)
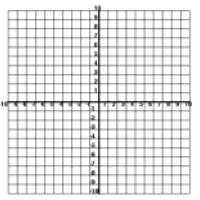
$y = 2^{x+4} - 3$
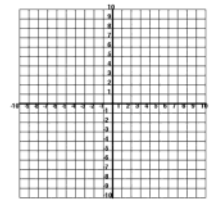
Absolute value functions (BASE)

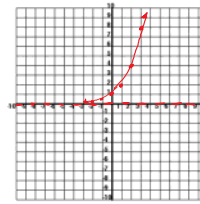$y = |x|$

mapping:

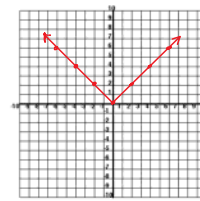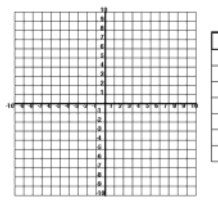## Absolute value functions (translated)

$y = |x-5| + 3$

x	y
-2	¼
-1	½
0	1
1	2
2	4
3	8

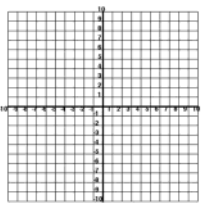| x	y
-6	6
-4	4
-2	2
0	0
2	2
4	4
6	6

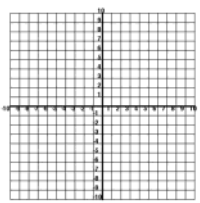## Rational functions (BASE)

$y = \dfrac{1}{x}$ mapping:

Rational functions (translated)
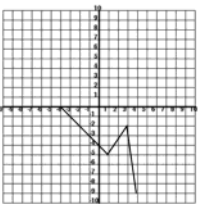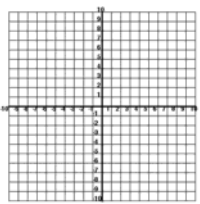
$y = \dfrac{1}{x+4} - 6$
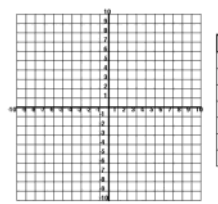
Random Function (BASE)

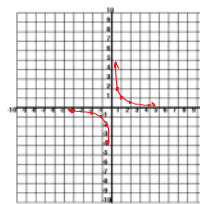$y = f(x)$ mapping:

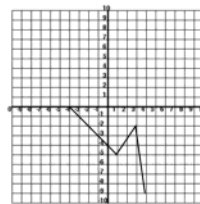## Random Function (translated)

$y = f(x-3) + 2$

x	y
-4	-¼
-2	-½
-1	-1
-½	-2
½	2
1	1
2	½
4	¼

x	y
-4	0
1	-5
3	-2
4	-9