Mathematics

Plotting Quadratic Graphs 1

Mrs Buckmire
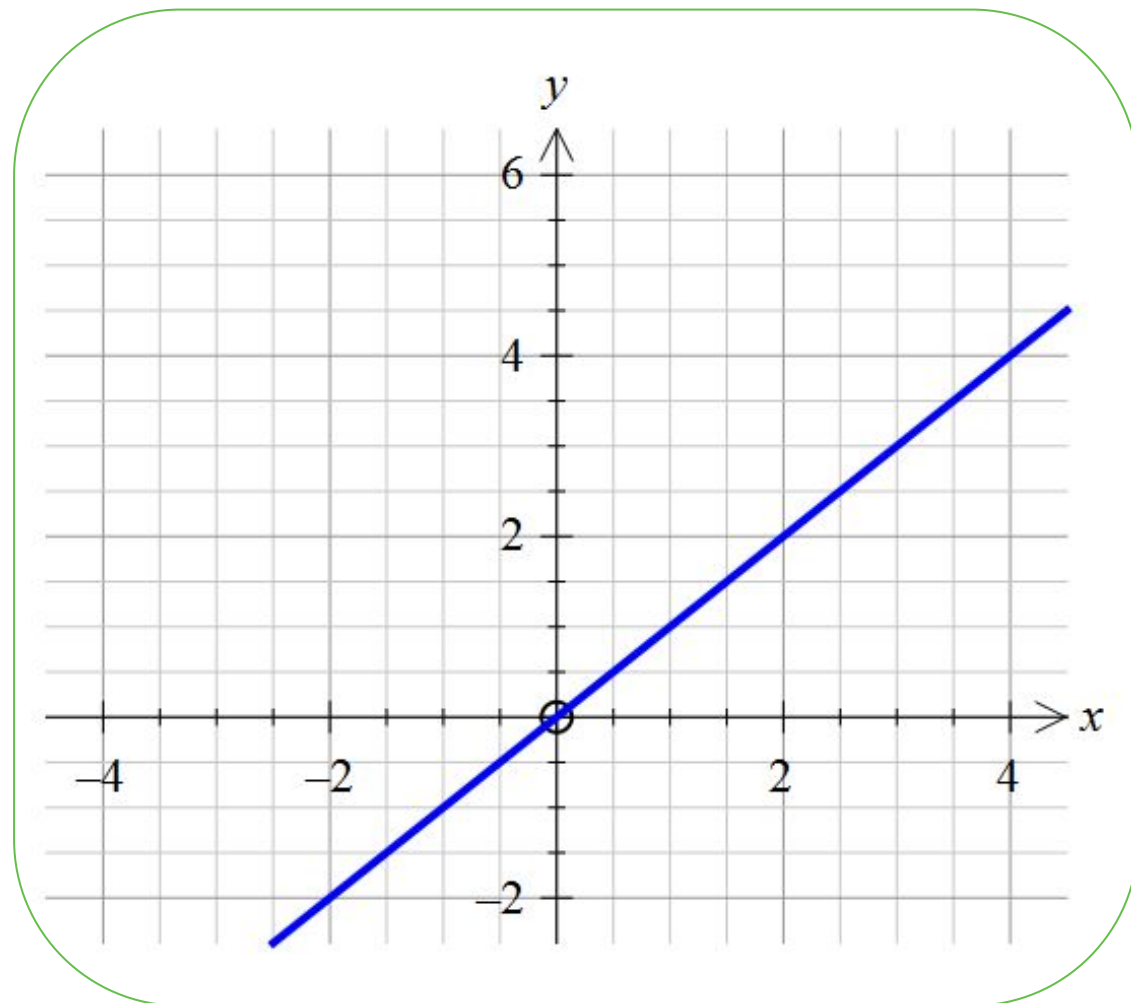
Try this

What's the same and what's different?
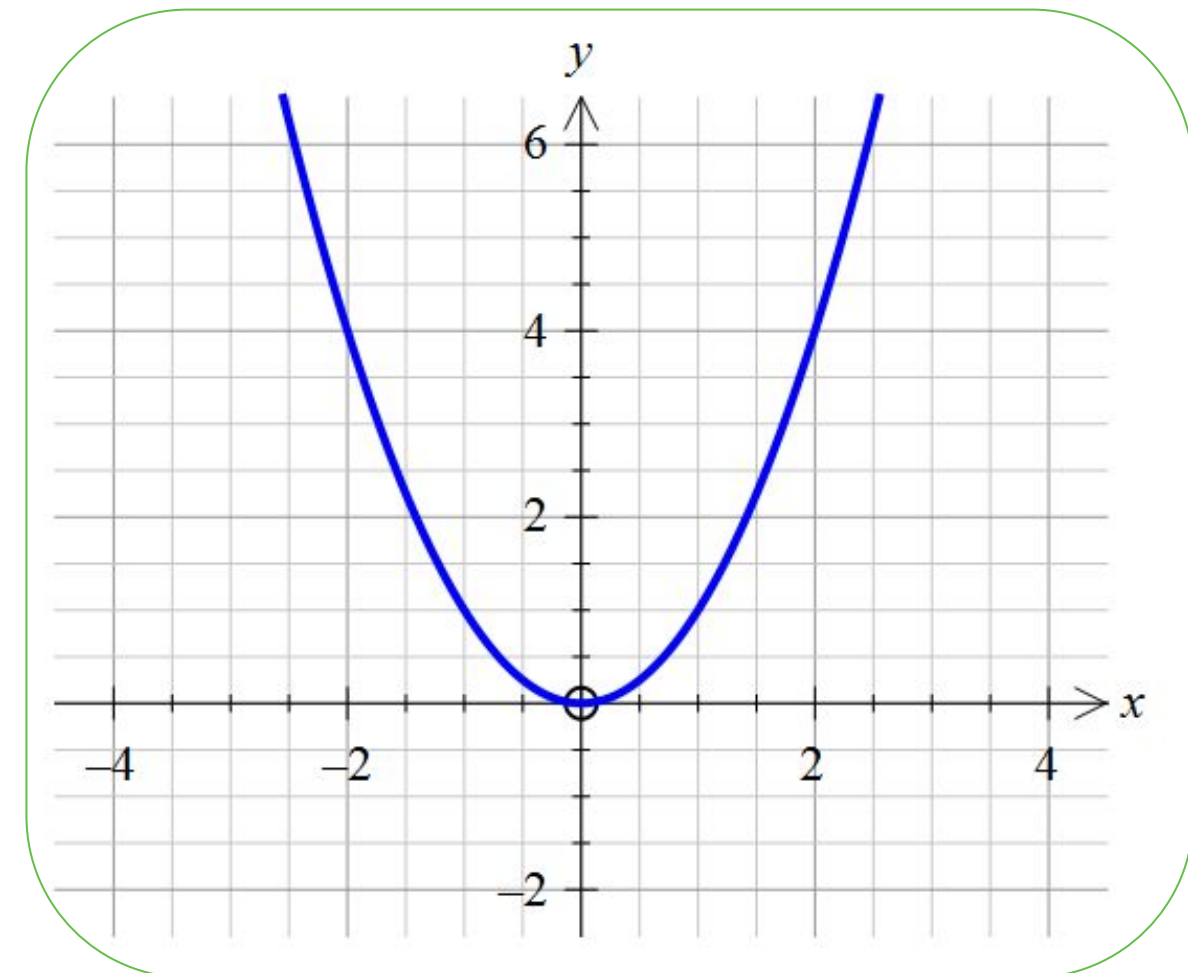
$$y = x$$

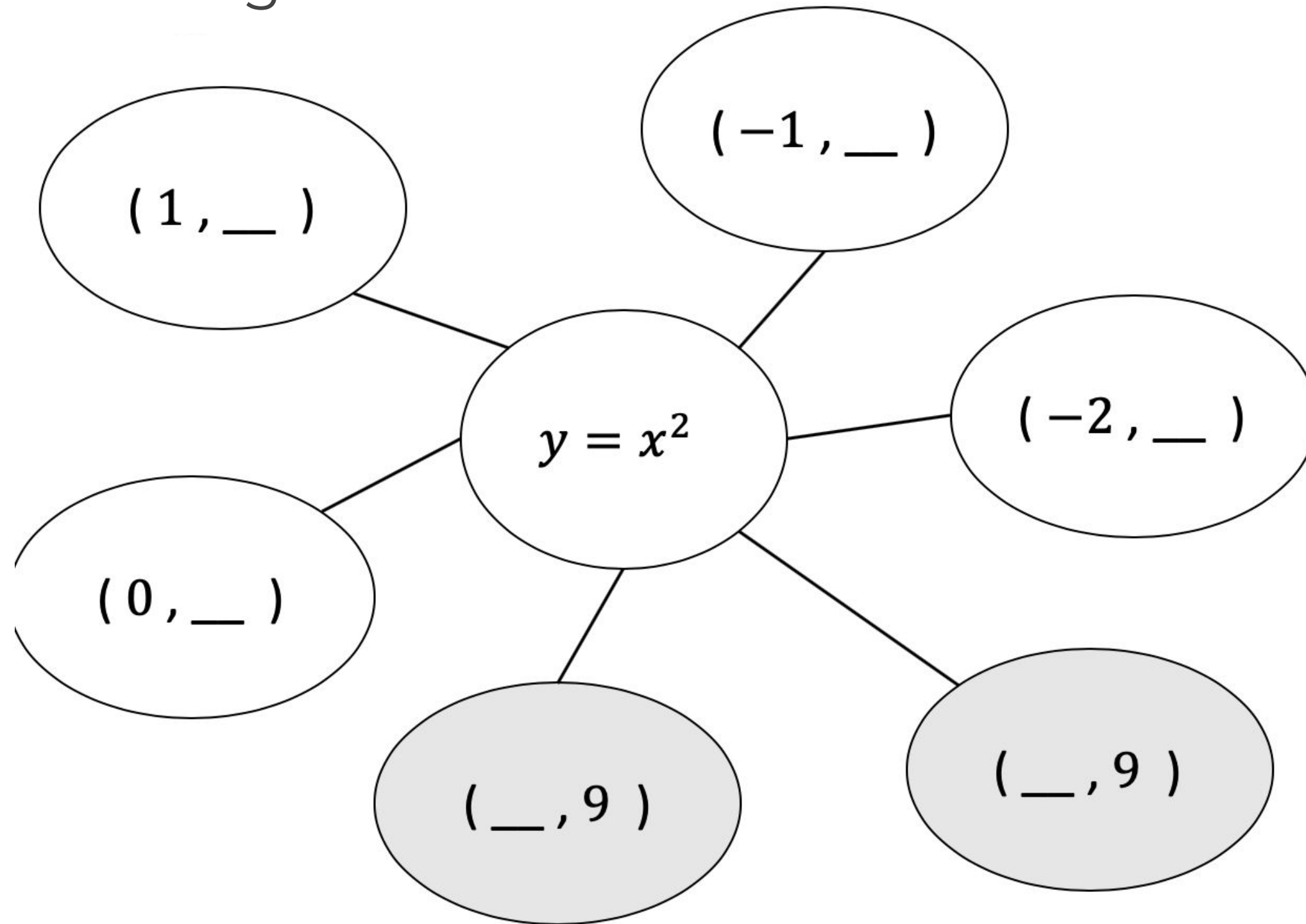| x	-1	0	1
y	-1	0	1

$$y = x^2$$

x	-1	0	1
y	-1	0	1

Connect

Find the missing co-ordinates

Independent task

Find the missing co-ordinates.

$(1, \underline{\quad})$

$(-1, \underline{\quad})$

$y = -x^2$

$(0, \underline{\quad})$

$(\underline{\quad}, -9)$
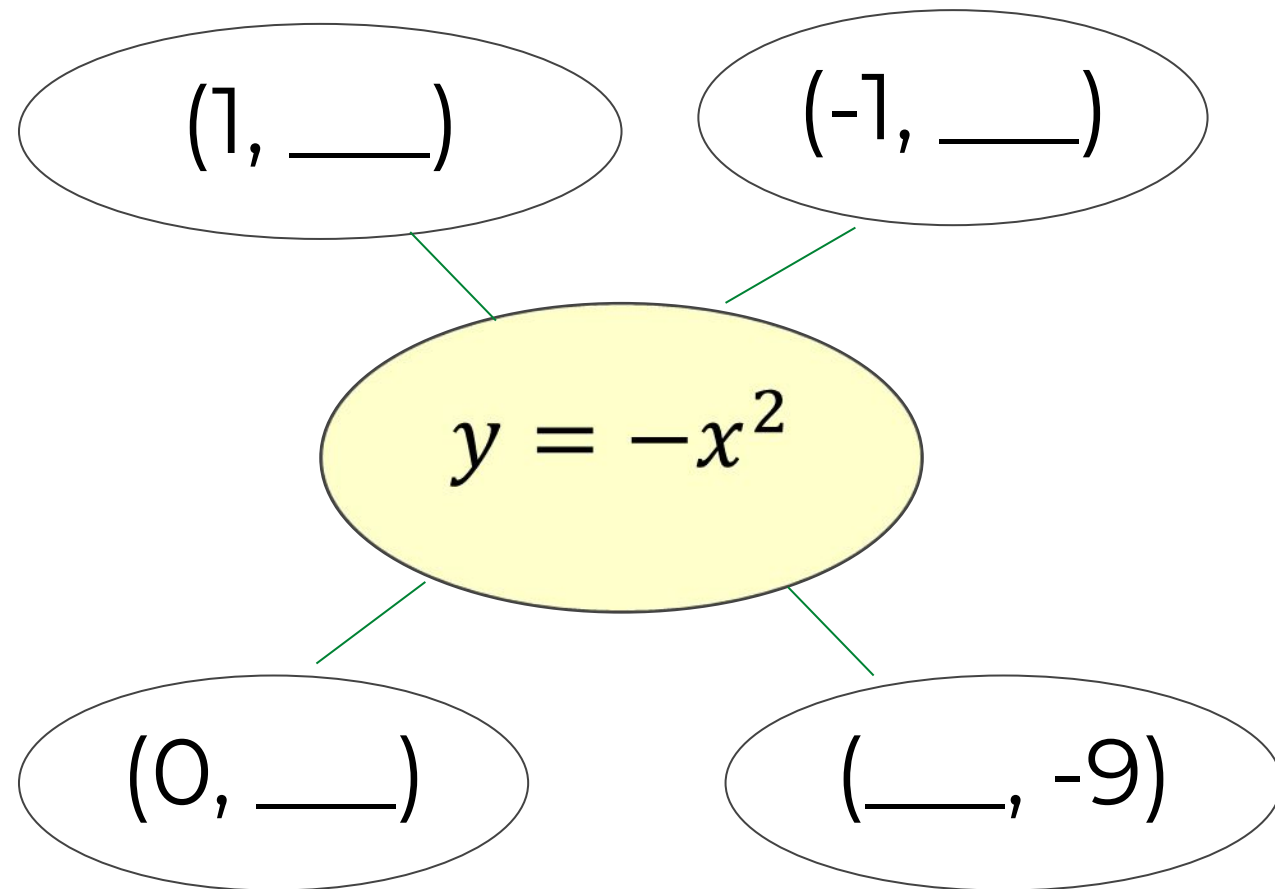
List 3 things that you notice.

$(1, \_)$

$(-1, \_)$

$(2, \_)$

$(-2, \_)$

$y = 2x^2$

$y = x^2 + x$

$(0, \_)$

$(\_, 8)$

$(0, \_)$

$(\frac{1}{2}, \_)$

$(1, \_)$

$(-1, \_)$

$y = x^2 + 1$

$(0, \_)$

$(\_, 10)$
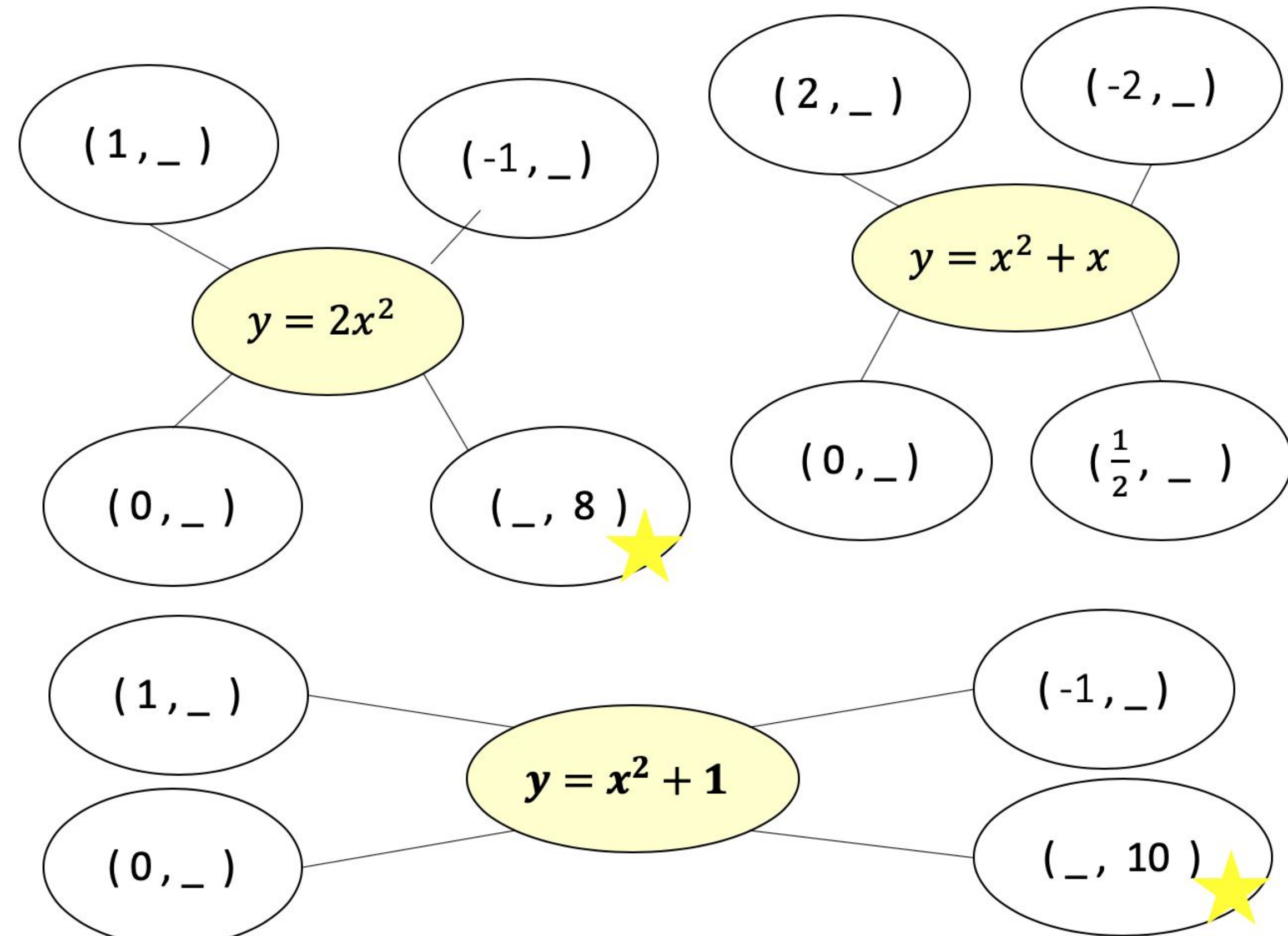
Explore

Make a table of value for x between -4 and 4.

Plot the graphs on the same axes

Can you describe the transformation that maps one graph onto another?

$$y = x^2$$

$$y = -x^2$$

$$y = x^2 + 1$$

Explore (Support)

Make a table of value for x between -4 and 4.

Plot the graphs on the same axes

Can you describe the transformation that maps one graph onto another?

$y = x^2$

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

$y = -x^2$

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

$y = x^2 + 1$

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