

Mathematics

Equivalent lines

Downloadable Resource

Mr Maseko

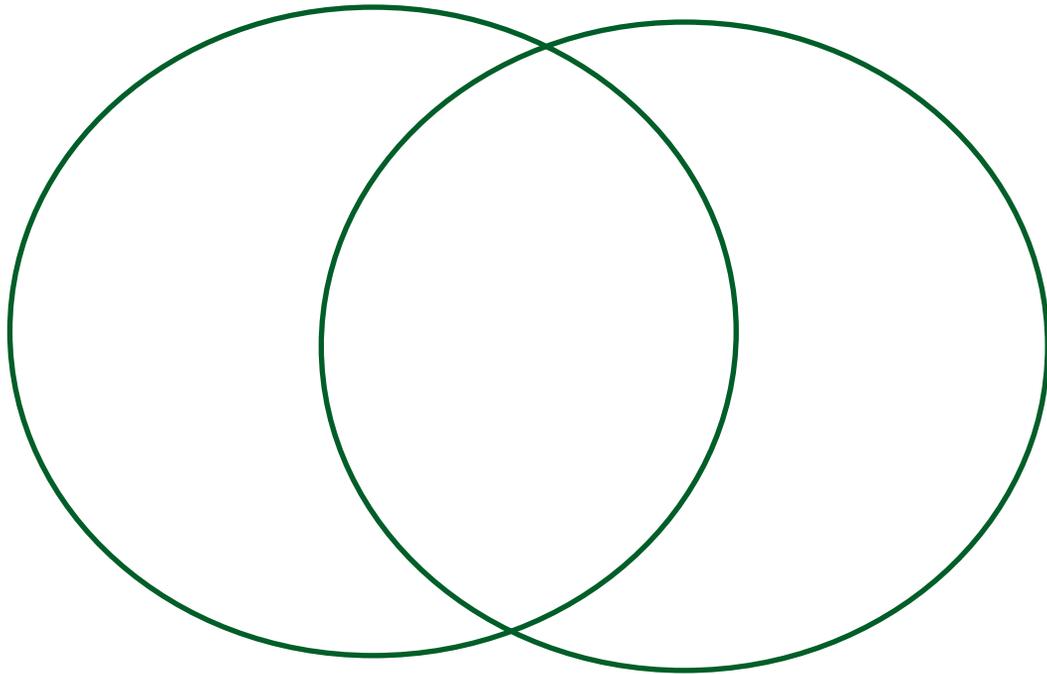


Try this

Fill in these Venn diagrams with some coordinates. What do you notice?

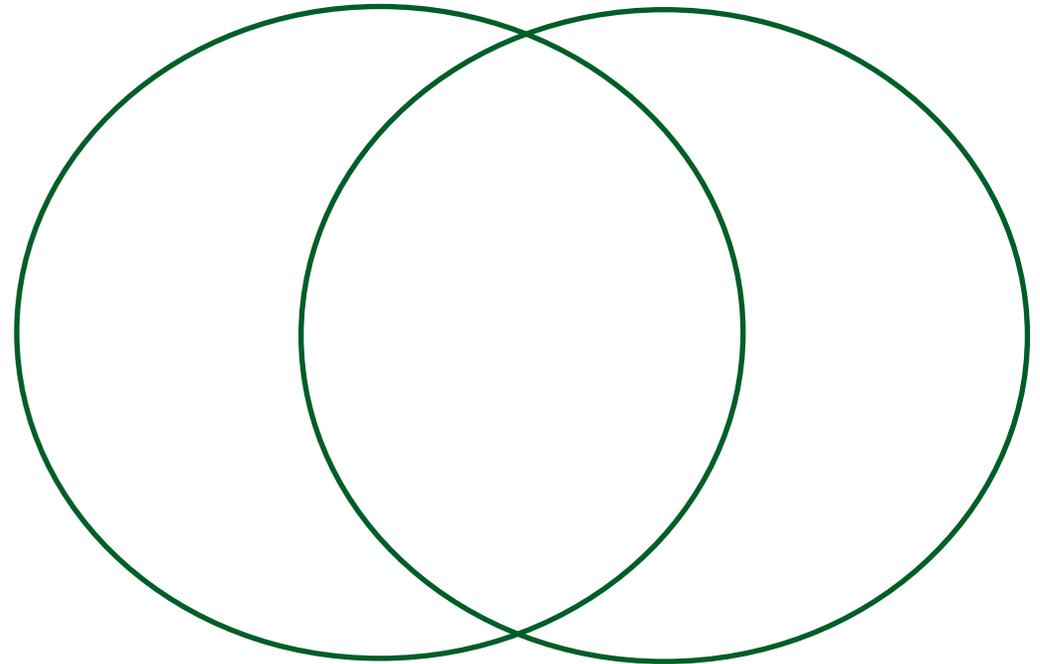
Coordinates on
the line $x + y = 5$

Coordinates on
the line $y = 2x - 3$



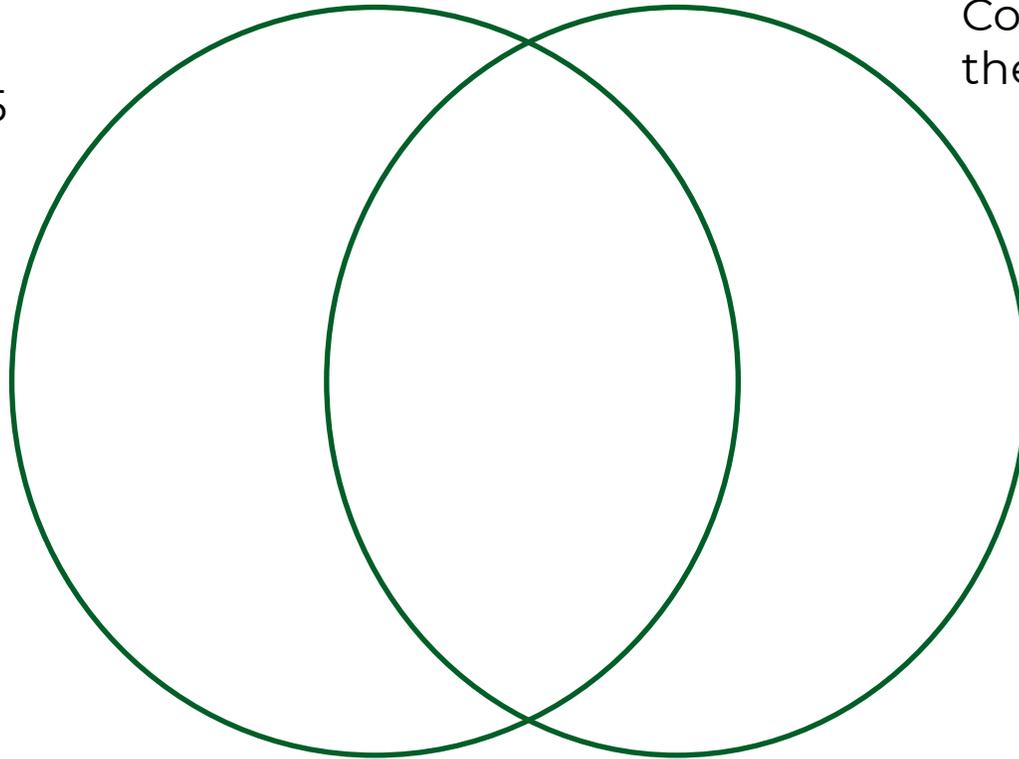
Coordinates on
the line $x + y = 5$

Coordinates on the
line $2x + 2y = 10$



Connect

Coordinates on
the line $x + y = 5$

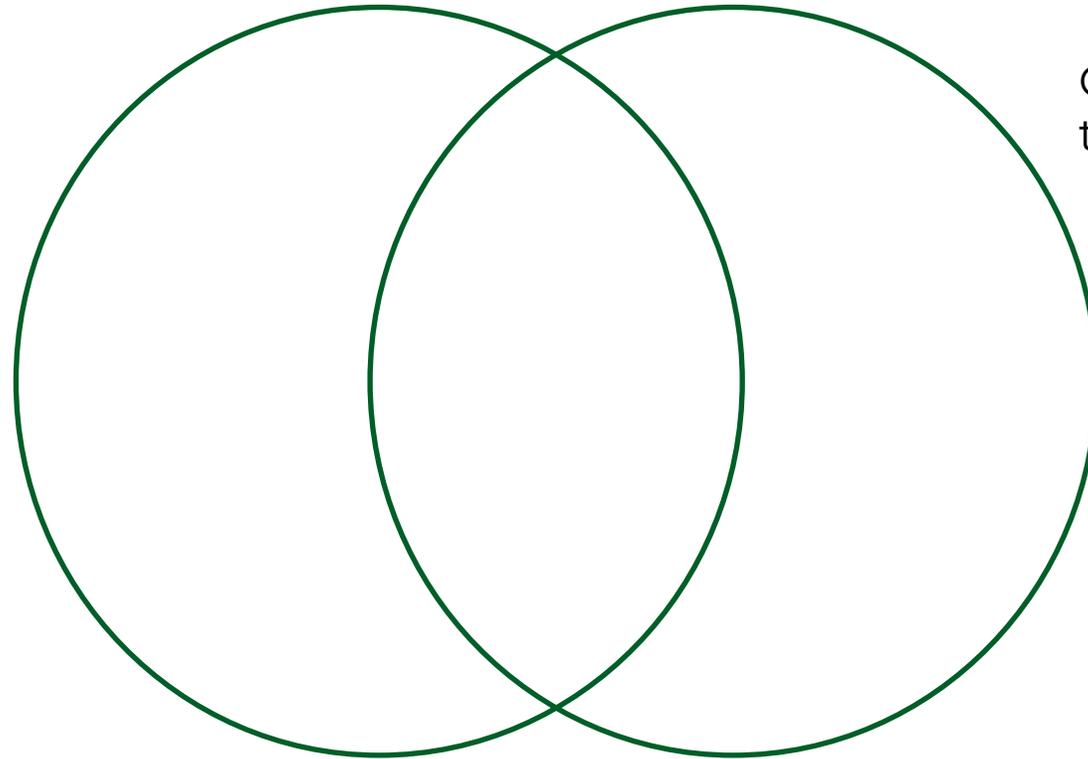


Coordinates on
the line $2x + 2y = 10$



Connect

Coordinates on
the line $y = 2x + 3$



Coordinates on
the line $2y = 4x + 6$



Independent task

Match the equivalent lines

$$x + y = 10$$

$$3y = 15x + 3$$

$$y = 5x + 1$$

$$6y = 10 - 4x$$

$$2x - y = 3$$

$$2x + 2y = 20$$

$$3y = 5 - 2x$$

$$4x - 2y = 6$$

2) State a line that is equivalent to $2x - y = 3$



Explore

Find equivalent expressions for each of these. Can you make all of the pink boxes the same number? What about the purple boxes? Or the green boxes?

$$x + 2y = 10 \text{ is the same as } \boxed{} x + \boxed{} y = \boxed{}$$

$$3x + y = 10 \text{ is the same as } \boxed{} x + \boxed{} y = \boxed{}$$

$$2x + 5y = 10 \text{ is the same as } \boxed{} x + \boxed{} y = \boxed{}$$

