



$$P(F) = 0.31$$
$$P(B) = 0.62$$
$$P(F \cup B) = 0.8$$

Draw a fully labelled Venn diagram to represent this information.

Find $P(F' \cap B)$

The line l is a tangent to the circle $x^2 + y^2 = 68$ at the point P .

P is the point $(2, 8)$

Work out the equation of the line l

The gravitational force, F , between two objects is inversely proportional to the square of the distance, d , between them.

When $F = 4$, $d = 3$.

Find F when $d = 6$.

Find the set of values of x that satisfy both

$$2x - 6 > 6 - 6x$$

and

$$x^2 - 6x + 2 < 42$$