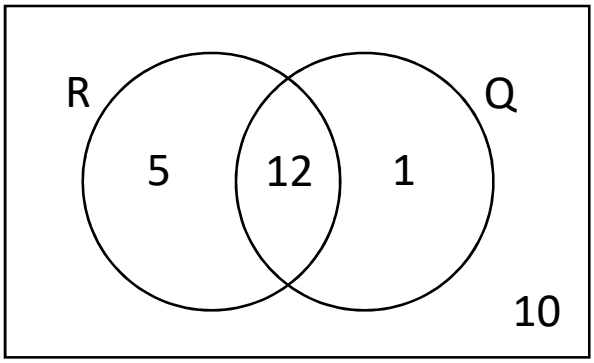
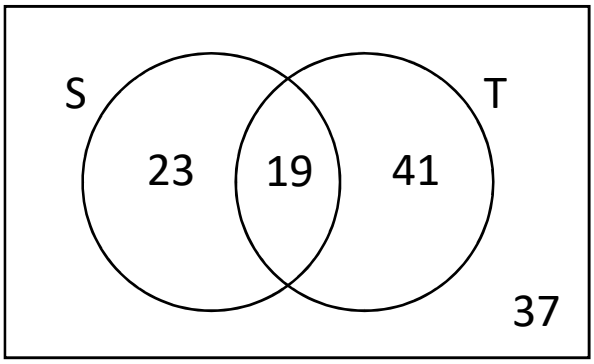
Venn Diagrams

1. The Venn diagram on the right shows the events R and Q.



Find:

a) P(R ∩ Q)
b) P(R')
c) P(R' ∩ Q)
d) P(R U Q)
e) P(R' U Q)



2. The Venn diagram on the left shows the events S and T.

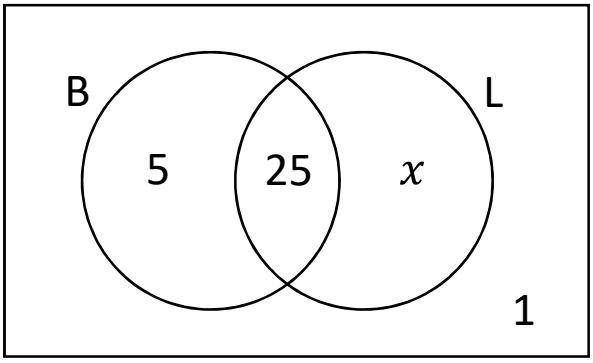
Find:

a) P(S ∩ T')
b) P(T)
c) P(S' ∩ T')
d) P(S U T)
e) P(S U T')

3. At 4pm one day, 40 people were asked if they'd had breakfast or lunch that day.

B = Breakfast
L = Lunch

The Venn diagram on the right shows their responses.



Find:

a) The value of x
b) P(B')
c) P(B' ∩ L)
d) P(B U L)
e) P(B' U L)

f) Given that a person hadn't eaten breakfast, find the probably they also didn't have lunch