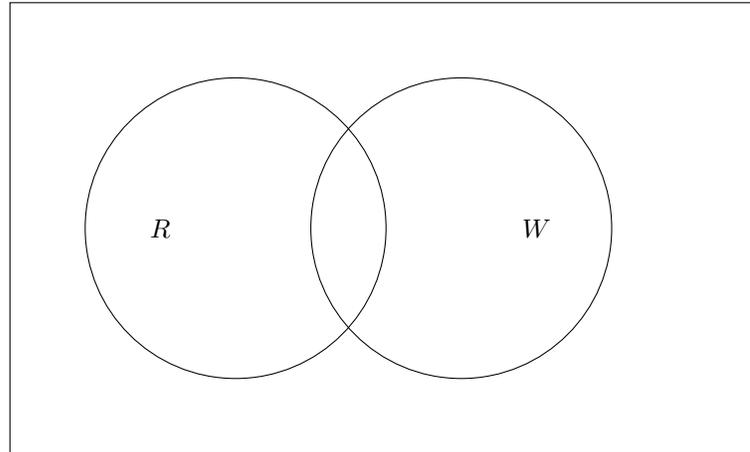




**Ex 3** The weather report says there's an 85% chance of rain, 25% chance of strong wind, and 10% chance of clear skies with no strong wind. Fill out a Venn Diagram illustrating the probabilities of each possible outcome. What is the probability of rain and strong wind?



**On-Your-Own Examples**

**Ex 1** A card is dealt from a standard deck of cards. Count an ace as high. Using probability rules where appropriate, find the probability that the card is:

(a) an ace and red

(b) an ace or red

(c) under a 6

(d) over a 6

(e) above a 6 and below a king

(f) above a 6 or below a king

**Ex 2** The weather report says there's a 40% chance of rain, a 30% chance of hail, and a 60% chance of rain or hail. Find the probability of:

(a) both rain and hail.

(b) neither rain nor hail.

(c) no rain.

(d) rain but no hail.

**Ex 3** If  $p(E) = \frac{3}{8}$ , find  $o(E)$  and  $o(E')$ .

**Ex 4** Two six-sided dice are rolled. Find the probability that the sum of the dice is:

(a) 5

(b) 11

(c) even

(d) even and doubles

(e) even or doubles

**Ex 5** Two hundred people apply to work at a company with three open positions. Sixty of the applicants are women. If three people are selected at random to fill the open positions, find the probability that...

(a) ...two of the three are women.

(b) ...none of the three are women.

(c) ...at least one of the three is a woman.