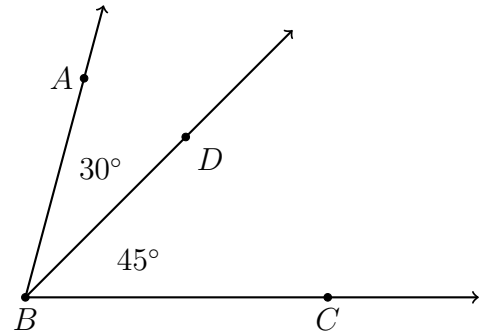


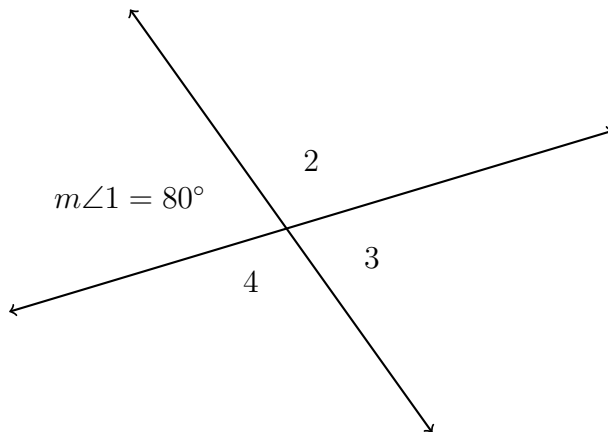
Name:

## 2.2 Classwork: Angle addition

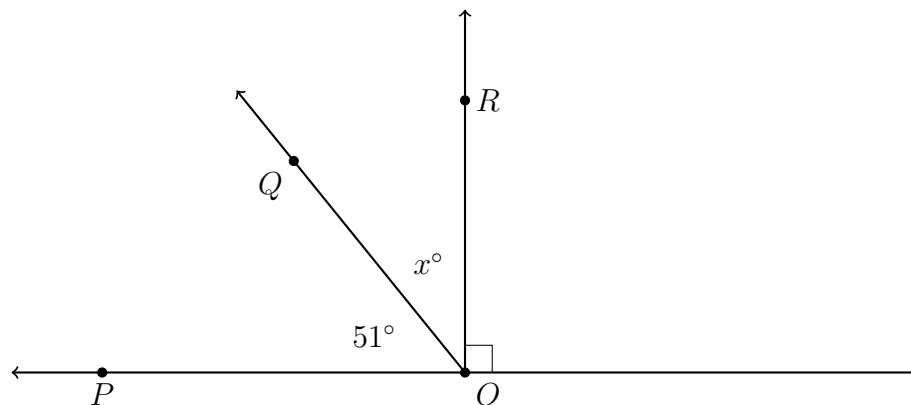
1. Do Now:  $m\angle ABD = 30^\circ$ ,  $m\angle DBC = 45^\circ$ . Find  $m\angle ABC$ .



2. Two lines intersect with  $m\angle 1 = 80^\circ$ . Find the measures of  $\angle 2$ ,  $\angle 3$ , and  $\angle 4$ .



3.  $\angle POQ$  and  $\angle QOR$  are complementary angles. Given  $m\angle POQ = 51^\circ$ , find  $m\angle QOR$ .

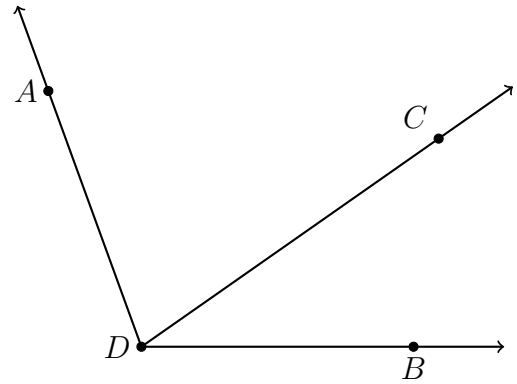


4. Given  $m\angle ADB = 110^\circ$ ,  $m\angle ADC = 75^\circ$ , and  $m\angle BDC = 3x + 5$ . Find  $x$ .

(a) Label the diagram.

(b) Write an equation.

(c) Solve for  $x$ .



(d) Check your answer