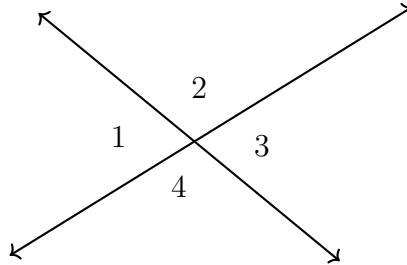


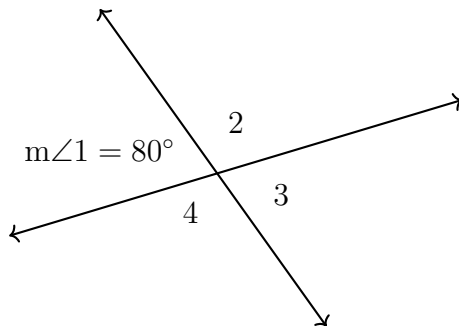
Name: \_\_\_\_\_

### 2.3 Classwork: Vertical angles

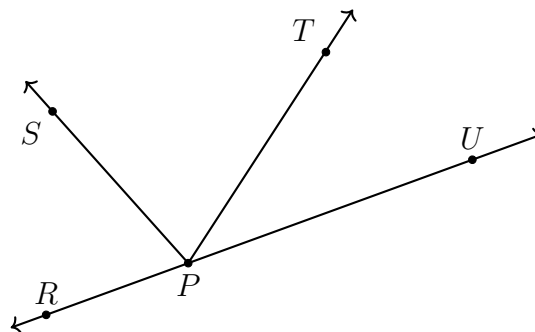
1. As shown below, two lines intersect making four angles:  $\angle 1$ ,  $\angle 2$ ,  $\angle 3$ , and  $\angle 4$ .



- (a) Which angle is opposite  $\angle 1$ ? \_\_\_\_\_
- (b) Name an angle that is adjacent to  $\angle 4$ . \_\_\_\_\_
- (c) True or false,  $\angle 2$  and  $\angle 4$  are vertical angles. \_\_\_\_\_
2. Two lines intersect with  $m\angle 1 = 80^\circ$ . Find and mark the measures of  $\angle 2$ ,  $\angle 3$ , and  $\angle 4$ .



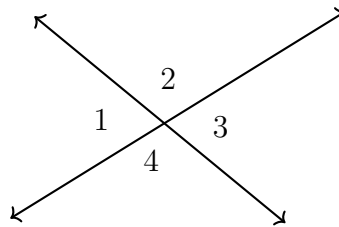
3. Given the situation in the diagram, answer each question. Circle True or False.



- (a) True or False:  $\overrightarrow{RP}$  and  $\overrightarrow{UP}$  are opposite rays.
- (b) True or False:  $\angle TPR$  is an obtuse angle.
- (c) True or False:  $\angle RPS$  and  $\angle SPU$  are supplementary angles.
- (d) True or False:  $\angle RPS$  and  $\angle SPT$  are adjacent angles.

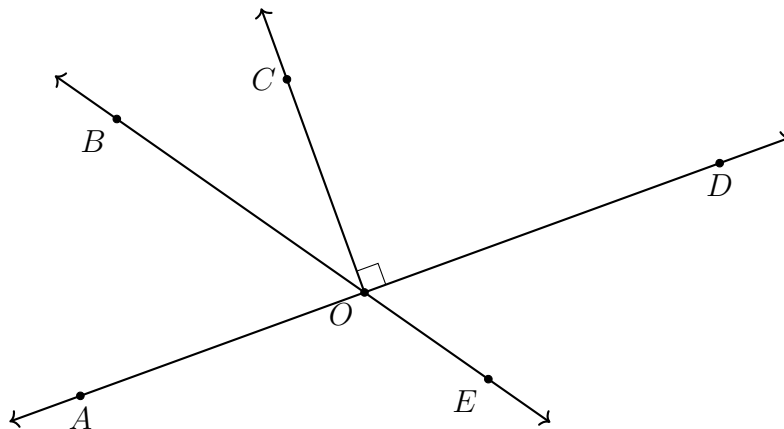
4. Identify the true statements

- (a)  $\angle 1 \cong \angle 2$
- (b)  $\angle 2 \cong \angle 4$
- (c)  $m\angle 1 + m\angle 4 = 180^\circ$
- (d)  $m\angle 2 + m\angle 3 = 90^\circ$



5. Measure the required angles of the diagram below and answer the questions.

- (a)  $m\angle AOB = \underline{\hspace{2cm}}$        $m\angle BOC = \underline{\hspace{2cm}}$        $m\angle DOE = \underline{\hspace{2cm}}$
- (b) Name an angle that is vertical to  $\angle DOE$ :  $\underline{\hspace{2cm}}$
- (c) Name an angle that is complementary to  $\angle AOB$ :  $\underline{\hspace{2cm}}$



6. Angles  $APC$  and  $CPD$  form a linear pair.  $m\angle APC = 10x + 15$  and  $m\angle CPD = 3x - 4$ . Find  $m\angle CPD$ . Check your answer for full credit.

