



Naming angles

Mana Maths

Te reo Māori terms



koi

vertex

Open in Te Aka

tohu paetahi

degree

Open in Te Aka

koki roto

interior angle

Open in Te Aka

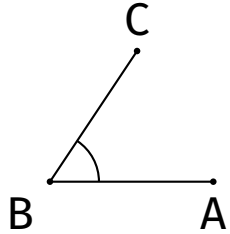
koi

point

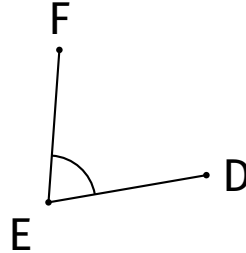
Open in Te Aka

Naming angles — Foundation

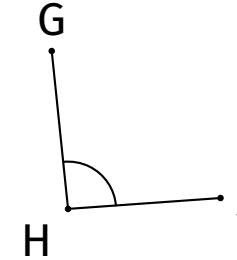
1. Name the marked angle.



2. Name the marked angle.



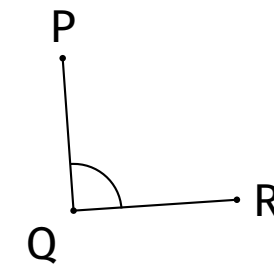
3. Name the marked angle.



4. Circle the letter that is the vertex in $\angle PQR$.
A. *P* B. *Q* C. *R*

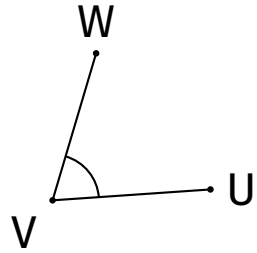
5. Circle the letter that is the vertex in $\angle MNO$.
A. *M* B. *N* C. *O*

6. Which name matches the angle shown?



- A. $\angle PQR$ B. $\angle PRQ$
C. $\angle QPR$

7. Which name matches the angle shown?



- A. $\angle UVW$ B. $\angle VWU$
C. $\angle WUV$

8. Fill in the missing letter so the vertex is B :
 $\angle A_C$

9. Fill in the missing letter so the vertex is S :
 $\angle R_T$

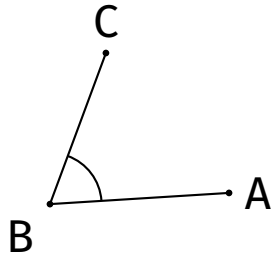
10. Write another correct name for the same angle: $\angle ABC =$ _____

11. Write another correct name for the same angle: $\angle DEF =$ _____

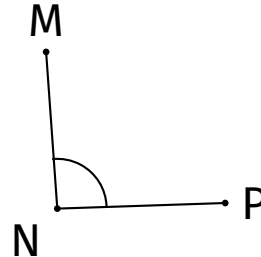
12. Explain this rule in a few words: where does the vertex go when naming an angle?

Naming angles — Proficient

1. Name the marked angle in two different ways.



2. Name the marked angle in two different ways.



3. The rays QX and QY form an angle. Write two correct names for it.

4. The rays TS and TU form an angle. Write two correct names for it.

5. Which one is not a correct name for the same angle?

$\angle ABC$, $\angle CBA$, $\angle BAC$

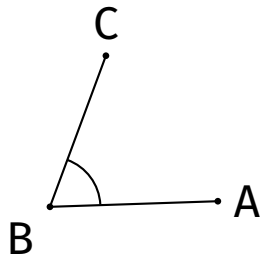
6. Which one is not a correct name for the same angle?

$\angle DEF$, $\angle FED$, $\angle DFE$

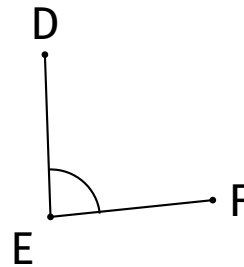
- 7.** Write the vertex of each angle: $\angle JKL$, $\angle PQR$, $\angle STU$.
- 8.** Copy and fix the wrong name. The angle has vertex B and arms through A and C , but it was written as $\angle ACB$.
- 9.** Copy and fix the wrong name. The angle has vertex M and arms through L and N , but it was written as $\angle LNM$.
- 10.** At one point, three rays OA , OB and OC are drawn. Name the small angle between OA and OB .
- 11.** At one point, three rays RV , RW and RX are drawn. Name the angle between RW and RX .
- 12.** Explain why $\angle ABC$ and $\angle CBA$ can name the same angle, but $\angle BAC$ cannot.

Naming angles — Excellence

1. In the diagram, give two correct names for the marked angle and one incorrect name.



2. In the diagram, give two correct names for the marked angle and one incorrect name.



3. A student says $\angle ABC$ and $\angle BAC$ are both correct because they use the same three letters. Explain the mistake.

4. A student writes $\angle XYZ$ when the vertex is Z . Rewrite the angle name correctly using the same letters.

5. Point Q is the vertex. One arm goes through P and the other goes through R . Write every correct three-letter name for the angle.

6. Point N is the vertex. One arm goes through M and the other goes through L . Write every correct three-letter name for the angle.

- 7.** Four rays OA , OB , OC and OD meet at O . Name the angle formed by OA and OC in two ways.
- 8.** Four rays TH , TJ , TK and TL meet at T . Name the angle formed by TJ and TL in two ways.
- 9.** Decide whether each is correct or incorrect for the same angle with vertex B : $\angle ABC$, $\angle CBA$, $\angle ACB$, $\angle CAB$.
- 10.** Decide whether each is correct or incorrect for the same angle with vertex M : $\angle LMN$, $\angle NML$, $\angle LNM$, $\angle MLN$.
- 11.** The angle between rays VX and VY is called $\angle XVY$. Explain why $\angle YVX$ is also correct.
- 12.** The angle between rays CD and CE is called $\angle DCE$. Explain why $\angle CDE$ is not correct.
- 13.** Create your own labelled angle using points A , B and C . Then write one correct name and one incorrect name.
- 14.** Create your own labelled angle using points P , Q and R . Then write two correct names for the same angle.
- 15.** What is the one position in a three-letter angle name that can never change if you are naming the same angle? Explain.

16. Why do mathematicians usually use three letters instead of one letter to name an angle?