

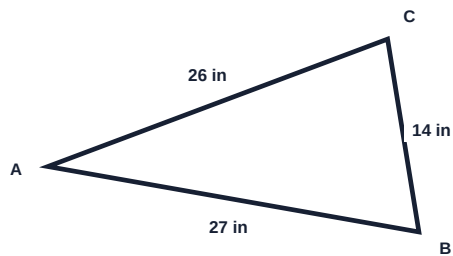
Order Triangle Angles

Use the side lengths to order the opposite angles from largest to smallest or identify the largest and smallest angles.

Section 1: Order all angles

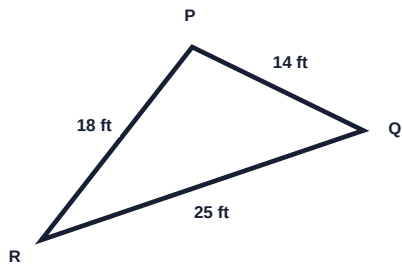
Write the complete order from largest to smallest. Use the opposite side-angle relationship.

1. Order the angles of triangle ABC from largest to smallest.



Largest to smallest:

2. Order the angles of triangle PQR from largest to smallest.



Largest to smallest:

3. Order the angles of triangle XYZ from largest to smallest.

YZ = 22 yd, XZ = 25 yd, XY = 12 yd

Largest to smallest:

4. Order the angles of triangle JKL from largest to smallest.

KL = 17 mi, JL = 26 mi, JK = 24 mi

Largest to smallest:

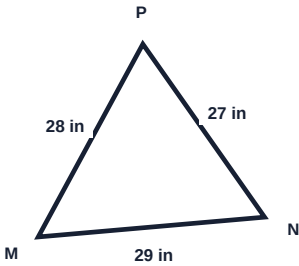
Order Triangle Angles

Use the side lengths to order the opposite angles from largest to smallest or identify the largest and smallest angles.

Section 2: Name the largest and smallest angles

Identify both extremes from the opposite side-angle relationship.

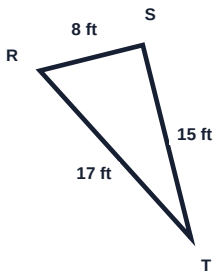
5. Name the largest and smallest angles of triangle MNP.



Largest: _____

Smallest: _____

6. Name the largest and smallest angles of triangle RST.



Largest: _____

Smallest: _____

7. Name the largest and smallest angles of triangle DEF.

EF = 30 yd, DF = 11 yd, DE = 27 yd

Largest: _____

Smallest: _____

8. Name the largest and smallest angles of triangle UVW.

VW = 30 mi, UW = 13 mi, UV = 25 mi

Largest: _____

Smallest: _____

Order Triangle Angles

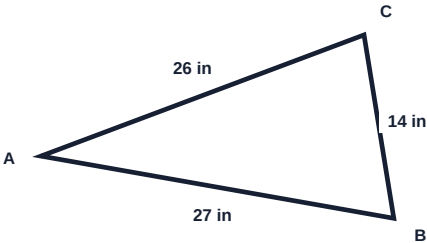
Worked Answer Key

Use the side lengths to order the opposite angles from largest to smallest or identify the largest and smallest angles.

Section 1: Order all angles

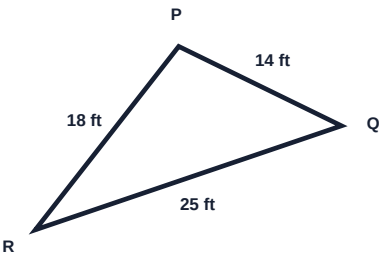
Write the complete order from largest to smallest. Use the opposite side-angle relationship.

1. Order the angles of triangle ABC from largest to smallest.



Side order: $AB\ (27\text{ in}) > AC\ (26\text{ in}) > BC\ (14\text{ in})$.
Opposite angles: $AB \leftrightarrow \text{Angle } C$, $AC \leftrightarrow \text{Angle } B$, $BC \leftrightarrow \text{Angle } A$.
Angle order: $\text{Angle } C > \text{Angle } B > \text{Angle } A$.
Angle C > Angle B > Angle A

2. Order the angles of triangle PQR from largest to smallest.



Side order: $QR\ (25\text{ ft}) > PR\ (18\text{ ft}) > PQ\ (14\text{ ft})$.
Opposite angles: $QR \leftrightarrow \text{Angle } P$, $PR \leftrightarrow \text{Angle } Q$, $PQ \leftrightarrow \text{Angle } R$.
Angle order: $\text{Angle } P > \text{Angle } Q > \text{Angle } R$.
Angle P > Angle Q > Angle R

3. Order the angles of triangle XYZ from largest to smallest.

$YZ = 22\text{ yd}$, $XZ = 25\text{ yd}$, $XY = 12\text{ yd}$

Side order: $XZ\ (25\text{ yd}) > YZ\ (22\text{ yd}) > XY\ (12\text{ yd})$.
Opposite angles: $XZ \leftrightarrow \text{Angle } Y$, $YZ \leftrightarrow \text{Angle } X$, $XY \leftrightarrow \text{Angle } Z$.
Angle order: $\text{Angle } Y > \text{Angle } X > \text{Angle } Z$.
Angle Y > Angle X > Angle Z

4. Order the angles of triangle JKL from largest to smallest.

$KL = 17\text{ mi}$, $JL = 26\text{ mi}$, $JK = 24\text{ mi}$

Side order: $JL\ (26\text{ mi}) > JK\ (24\text{ mi}) > KL\ (17\text{ mi})$.
Opposite angles: $JL \leftrightarrow \text{Angle } K$, $JK \leftrightarrow \text{Angle } L$, $KL \leftrightarrow \text{Angle } J$.
Angle order: $\text{Angle } K > \text{Angle } L > \text{Angle } J$.
Angle K > Angle L > Angle J

Order Triangle Angles

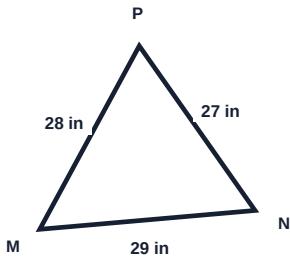
Worked Answer Key

Use the side lengths to order the opposite angles from largest to smallest or identify the largest and smallest angles.

Section 2: Name the largest and smallest angles

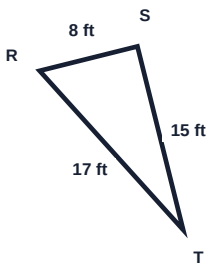
Identify both extremes from the opposite side-angle relationship.

5. Name the largest and smallest angles of triangle MNP.



Side order: $MN\ (29\text{ in}) > MP\ (28\text{ in}) > NP\ (27\text{ in})$.
Opposite angles: $MN \leftrightarrow \text{Angle } P$, $MP \leftrightarrow \text{Angle } N$, $NP \leftrightarrow \text{Angle } M$.
Angle order: $\text{Angle } P > \text{Angle } N > \text{Angle } M$.
Largest: Angle P Smallest: Angle M

6. Name the largest and smallest angles of triangle RST.



Side order: $RT\ (17\text{ ft}) > ST\ (15\text{ ft}) > RS\ (8\text{ ft})$.
Opposite angles: $RT \leftrightarrow \text{Angle } S$, $ST \leftrightarrow \text{Angle } R$, $RS \leftrightarrow \text{Angle } T$.
Angle order: $\text{Angle } S > \text{Angle } R > \text{Angle } T$.
Largest: Angle S Smallest: Angle T

7. Name the largest and smallest angles of triangle DEF.

EF = 30 yd, DF = 11 yd, DE = 27 yd

Side order: $EF\ (30\text{ yd}) > DE\ (27\text{ yd}) > DF\ (11\text{ yd})$.
Opposite angles: $EF \leftrightarrow \text{Angle } D$, $DE \leftrightarrow \text{Angle } F$, $DF \leftrightarrow \text{Angle } E$.
Angle order: $\text{Angle } D > \text{Angle } F > \text{Angle } E$.
Largest: Angle D Smallest: Angle E

8. Name the largest and smallest angles of triangle UVW.

VW = 30 mi, UW = 13 mi, UV = 25 mi

Side order: $VW\ (30\text{ mi}) > UV\ (25\text{ mi}) > UW\ (13\text{ mi})$.
Opposite angles: $VW \leftrightarrow \text{Angle } U$, $UV \leftrightarrow \text{Angle } W$, $UW \leftrightarrow \text{Angle } V$.
Angle order: $\text{Angle } U > \text{Angle } W > \text{Angle } V$.
Largest: Angle U Smallest: Angle V