# Math Sheet

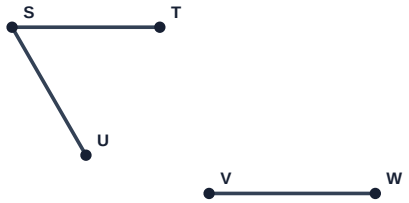
Name _____ Score _____ Teacher _____ Date _____

## Construct Angles

Use only a compass and straightedge. Copy compass widths; do not measure with a protractor.

### Compass and straightedge workspace

**1.** **Copy angle TSU at vertex V, using ray VW as the first side.**




WORKSPACE

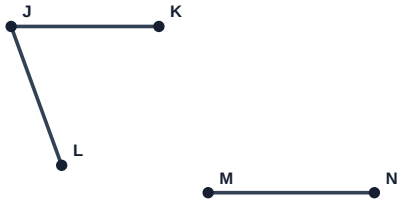
**2.** **At A, construct a 60-degree angle using ray AB.**

WORKSPACE

**3.** **At S, construct a 90-degree angle to ray ST.**

WORKSPACE

**4.** **Copy angle KJL at vertex M, using ray MN as the first side.**




WORKSPACE

Keep construction arcs visible. Do not measure with a ruler or protractor.

# Math Sheet

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# Construct Angles

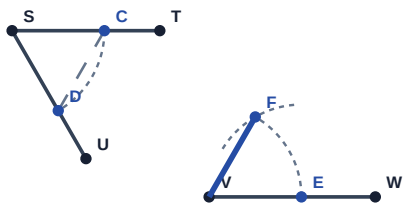
## Construction Answer Key

Use only a compass and straightedge. Copy compass widths; do not measure with a protractor.

### Solutions and compass marks

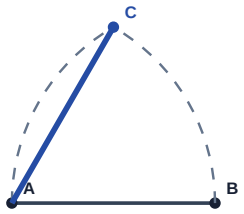
**1.** **Copy angle TSU at vertex V, using ray VW as the first side.**

1. Draw one arc centered at S; mark its ray crossings C and D.
2. With the same radius, draw an arc centered at V; mark its crossing with VW as E.
3. Set the compass to chord CD; from E mark F on the new arc.
4. **Draw ray VF. The copied chord gives an equal angle.**




**2.** **At A, construct a 60-degree angle using ray AB.**

1. Set the compass to AB.
2. Draw an arc centered at A through B.
3. Without changing the compass, draw an arc centered at B; label the upper intersection C.
4. **Draw ray AC. The equilateral triangle gives a 60-degree angle.**



Name _____ Score _____ Teacher _____ Date _____

# Construct Angles

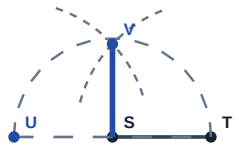
## Construction Answer Key

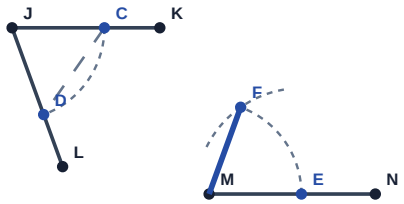
Use only a compass and straightedge. Copy compass widths; do not measure with a protractor.

### Solutions and compass marks

**3.** **At S, construct a 90-degree angle to ray ST.**

1. Extend ray ST through S; use one compass width to mark U opposite T, so ST = SU.
2. From T and U, draw equal arcs that meet at V.
3. **Draw ray SV. It is perpendicular to line TU.**




**4.** **Copy angle KJL at vertex M, using ray MN as the first side.**

1. Draw one arc centered at J; mark its ray crossings C and D.
2. With the same radius, draw an arc centered at M; mark its crossing with MN as E.
3. Set the compass to chord CD; from E mark F on the new arc.
4. **Draw ray MF. The copied chord gives an equal angle.**