

Name: _____

Date _____

Topic : Triangular Inequalities- Worksheet 1

Do the following:

1. In triangle JKG, an exterior angle at J measures 125° , and $m\angle K=45^\circ$. Which is the longest side of the triangle?
2. In triangle DGH, $m\angle D=40^\circ$ and $m\angle G=30^\circ$. Which is the longest side of the triangle?
3. In triangle NSM, an exterior angle at N measures 105° , and $m\angle S=60^\circ$. Which is the longest side of the triangle?
4. In triangle KFH, $m\angle K=30^\circ$ and $m\angle F=80^\circ$. Which is the longest side of the triangle?
5. In triangle DJS, $m\angle D=30^\circ$ and $m\angle J=70^\circ$. Which is the longest side of the triangle?
6. In triangle RID, an exterior angle at R measures 75° , and $m\angle I=40^\circ$. Which is the longest side of the triangle?
7. In triangle HJD, $m\angle H=50^\circ$ and $m\angle J=75^\circ$. Which is the longest side of the triangle?
8. In triangle AKD, $m\angle A=20^\circ$, and $m\angle A > m\angle K$. Which is the longest side of the triangle?
9. In triangle UJK, an exterior angle at U measures 80° , and $m\angle J=50^\circ$. Which is the longest side of the triangle?
10. In triangle GJK, $m\angle G = 55^\circ$ and $m\angle J = 55^\circ$. Which is the longest side of the triangle?



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Topic : Triangular Inequalities- Worksheet 2

Do the following:

1. In triangle FTG , an exterior angle at F measures 120° , and $m\angle T=30^\circ$. Which is the longest side of the triangle?
2. In triangle TYH , $m\angle T=50^\circ$ and $m\angle Y=35^\circ$. Which is the longest side of the triangle?
3. In triangle KSG , an exterior angle at K measures 110° , and $m\angle S=45^\circ$. Which is the longest side of the triangle?
4. In triangle SDG , $m\angle S=35^\circ$ and $m\angle D=85^\circ$. Which is the longest side of the triangle?
5. In triangle LKD , $m\angle L=40^\circ$ and $m\angle K=75^\circ$. Which is the longest side of the triangle?
6. In triangle SLF , an exterior angle at S measures 70° , and $m\angle L=45^\circ$. Which is the longest side of the triangle?
7. In triangle RJF , $m\angle R=55^\circ$ and $m\angle J=70^\circ$. Which is the longest side of the triangle?
8. In triangle WES , $m\angle W=45^\circ$, and $m\angle W > m\angle E$. Which is the longest side of the triangle?
9. In triangle LAO , an exterior angle at L measures 80° , and $m\angle A=50^\circ$. Which is the longest side of the triangle?
10. In triangle DJA , $m\angle D = 40^\circ$ and $m\angle J = 40^\circ$. Which is the longest side of the triangle?



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Topic : Triangular Inequalities- Worksheet 3

Do the following:

1. In triangle EKS , an exterior angle at E measures 125° , and $m\angle K=40^\circ$. Which is the longest side of the triangle?
2. In triangle FEJ , $m\angle F=65^\circ$ and $m\angle E=40^\circ$. Which is the longest side of the triangle?
3. In triangle SLF , an exterior angle at S measures 115° , and $m\angle L=25^\circ$. Which is the longest side of the triangle?
4. In triangle FJN , $m\angle F=55^\circ$ and $m\angle J=65^\circ$. Which is the longest side of the triangle?
5. In triangle SKD , $m\angle S=60^\circ$ and $m\angle K=85^\circ$. Which is the longest side of the triangle?
6. In triangle SKV , an exterior angle at S measures 80° , and $m\angle L=35^\circ$. Which is the longest side of the triangle?
7. In triangle EJT , $m\angle E=75^\circ$ and $m\angle J=65^\circ$. Which is the longest side of the triangle?
8. In triangle LSO , $m\angle L=15^\circ$, and $m\angle L > m\angle S$. Which is the longest side of the triangle?
9. In triangle AOD , an exterior angle at A measures 65° , and $m\angle O=30^\circ$. Which is the longest side of the triangle?
10. In triangle VCM , $m\angle V = 20^\circ$ and $m\angle C = 60^\circ$. Which is the longest side of the triangle?



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Topic : Triangular Inequalities- Worksheet 4

Do the following:

1. In triangle MFK , an exterior angle at M measures 130° , and $m\angle F=35^\circ$. Which is the longest side of the triangle?
2. In triangle KXL , $m\angle K=35^\circ$ and $m\angle X=65^\circ$. Which is the longest side of the triangle?
3. In triangle TIK , an exterior angle at T measures 60° , and $m\angle I=15^\circ$. Which is the longest side of the triangle?
4. In triangle MFL , $m\angle M=85^\circ$ and $m\angle F=35^\circ$. Which is the longest side of the triangle?
5. In triangle LDK , $m\angle L=45^\circ$ and $m\angle D=50^\circ$. Which is the longest side of the triangle?
6. In triangle RDB , an exterior angle at R measures 60° , and $m\angle D=45^\circ$. Which is the longest side of the triangle?
7. In triangle DKG , $m\angle D=80^\circ$ and $m\angle K=55^\circ$. Which is the longest side of the triangle?
8. In triangle DER , $m\angle D=30^\circ$, and $m\angle D > m\angle E$. Which is the longest side of the triangle?
9. In triangle HMF , an exterior angle at H measures 100° , and $m\angle M=70^\circ$. Which is the longest side of the triangle?
10. In triangle GKY , $m\angle G = 60^\circ$ and $m\angle K = 50^\circ$. Which is the longest side of the triangle?



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Topic : Triangular Inequalities- Worksheet 5

Do the following:

1. In triangle LWK, an exterior angle at L measures 125° , and $m\angle W=45^\circ$. Which is the longest side of the triangle?
2. In triangle HDY, $m\angle H=65^\circ$ and $m\angle D=25^\circ$. Which is the longest side of the triangle?
3. In triangle UKM, an exterior angle at U measures 65° , and $m\angle I=30^\circ$. Which is the longest side of the triangle?
4. In triangle ALR, $m\angle A=55^\circ$ and $m\angle L=85^\circ$. Which is the longest side of the triangle?
5. In triangle TKY, $m\angle T=35^\circ$ and $m\angle K=75^\circ$. Which is the longest side of the triangle?
6. In triangle FKT, an exterior angle at F measures 95° , and $m\angle K=35^\circ$. Which is the longest side of the triangle?
7. In triangle SAL, $m\angle S=60^\circ$ and $m\angle A=65^\circ$. Which is the longest side of the triangle?
8. In triangle YMH, $m\angle Y=40^\circ$, and $m\angle Y > m\angle H$. Which is the longest side of the triangle?
9. In triangle RMF, an exterior angle at R measures 90° , and $m\angle M=60^\circ$. Which is the longest side of the triangle?
10. In triangle SLF, $m\angle S = 50^\circ$ and $m\angle L = 60^\circ$. Which is the longest side of the triangle?

