|  |  |  |
| --- | --- | --- |
|  Given: $\overbar{MQ}∥\overbar{OP}$ Prove: $∆MNQ\~∆PNO$ | Given: $AB=1 ;AD=6$ $AC=2 ;AF=12$Prove: $∠ABC≅∠D$ | Given: $\overbar{HJ}∥\overbar{GK}$ Prove: $\frac{IJ}{IK}=\frac{IH}{HG}$ |
| Given: $AB=2 ;PQ=6$ $AC=5 ;PR=15$ $∠A≅∠P$Prove: $∆ABC\~∆PGR$ | Given: $\overbar{BA}∥\overbar{CD}$Prove: $\frac{AB}{DC}=\frac{AE}{DE}$ | Given: B is the midpoint of$\overbar{AD}$ C is the midpoint of$\overbar{AF}$  Prove: $∠ACB≅∠F$ |
| Given: $\overbar{BC}$ is the midsegment of $∆ADF$Prove: $\overbar{BC}∥\overbar{DF}$ | Given: $\overbar{BD}∥\overbar{AE}$ Prove: $∆CBD\~∆CAE$ | Given: $AE=2 ;ED=6$ $BC=4 ;BD=16$Prove: $∠DEC≅∠A$ |

Tic-Tac-Toe Proofs

Directions: Complete any three proofs to form Tic-Tac-Toe!

Write your proofs on a separate sheet of paper and staple together before turning in.

Tic-Tac-Toe Proofs

Directions: Complete any three proofs to form Tic-Tac-Toe!

Write your proofs on a separate sheet of paper and staple together before turning in.

|  |  |  |
| --- | --- | --- |
| Given: $\overbar{AB}∥\overbar{DC}$Prove: $∆EDC\~∆EAB$ | Given: $AE=7 ;ED=14$ $BC=8 ;BD=24$Prove: $∆EDC\~∆ADB$ | Given: T is the midpoint of$\overbar{US}$ V is the midpoint of$ \overbar{UW}$ Prove: $\overbar{TV}∥ \overbar{SW}$ |
| Given: $UT=3 ;US=15$ $UV=4 ;VW=16$Prove: $∆UTV\~∆USW$ | Given: $\overbar{MP}$ is the midsegment of $∆RNQ$Prove: $\overbar{MP}∥ \overbar{NQ}$ | Given: $\overbar{NP}∥\overbar{MQ}$ Prove: $∆ONP\~∆OMQ$ |
| Given: E is the midpoint of$ \overbar{AD}$ C is the midpoint of$ \overbar{BD}$ Prove: $\overbar{EC}∥ \overbar{AB}$ | Given: $\overbar{AB}∥\overbar{CD}$ $∠B≅∠D$Prove: $∠BCA≅∠E$ | Given: $AC=10 ;DF=2$ $AB=15 ;DE=3$ ∠A ≅ ∠D  Prove: $∆ACB\~∆DFE$Image result for similar triangles |