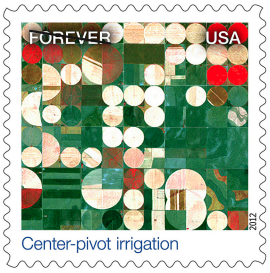
Ready, Set, Go!



Ready

Topic: Are you ready for a test on module 5?

Figure 1 has been rotated 180º about the midpoint in side BC to form figure 2. Figure 1 was then translated to the right to form figure 3.

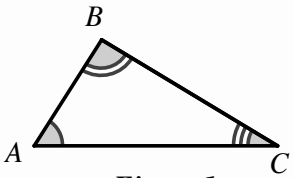


Figure 1

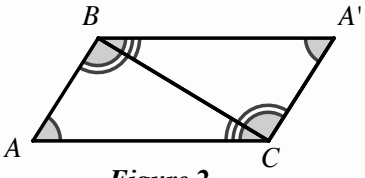


Figure 2

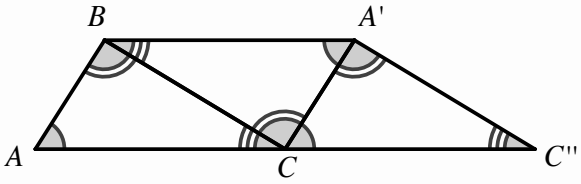


Figure 3

1. Use figure 3 to explain how you know the exterior angle $\angle B'CC''$ is equal to the sum of the 2 remote interior angles $\angle BAC$ *and* $\angle ABC$.

2. Use figure 3 to explain how you know the sum of the angles in a triangle is always 180º.

3. Use figure 2 to explain how you know the sum of the angles in a quadrilateral is always 360º.

4. Use figure 2 to explain how you know that the opposite angles in a parallelogram are congruent.

5. Use figure 2 to explain how you know that the opposite sides in a parallelogram are parallel and congruent.

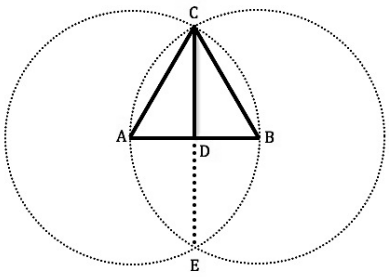
6. Use figure 2 to explain how you know that when two parallel lines are crossed by a transversal, the alternate interior angles are congruent.

7. Use figure 2 and/or 3 to explain how you know that when two parallel lines are crossed by a transversal, the same-side interior angles are supplementary.

Set

Topic: Writing proofs

8. Prove that $\overline{CD}$ is an altitude of ΔABC.
   Use the diagram and write a 2 column proof.



9. Use the diagram to prove that ΔABC is an isosceles triangle. (Choose your style.)

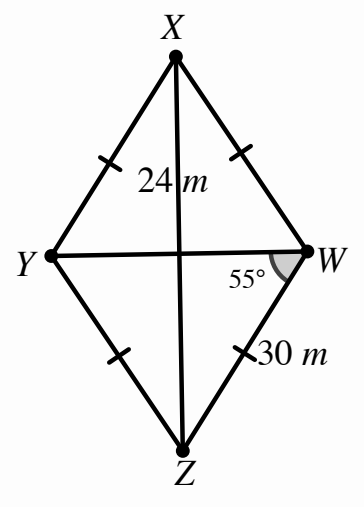
10. Use the diagram to prove that $m\angle A \cong m\angle B$. (Choose your style.)

Go

Topic: The algebra of parallelograms

Use what you know about triangles and parallelograms to find each measure.

11. $\overline{XZ}$
12. $m\angle XYZ$
13. $m\angle XYW$
14. $\overline{YX}$
15. $m\angle YXZ$
16. $\overline{YW}$



17. $\overline{LG}$
18. $\overline{HF}$
19. $m\angle EHG$
20. $m\angle FEH$
21. $m\angle ELF$
22. $\overline{FG}$
23. $\overline{EG}$
24. $m\angle FGE$