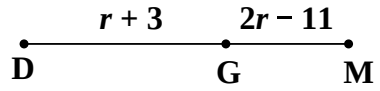
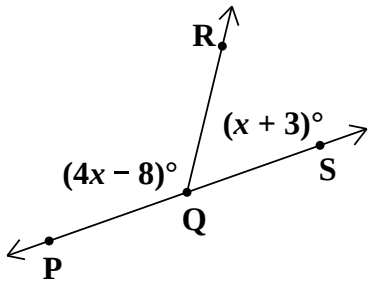
FCPS End of Unit Common Assessment
Math, Geometry, Topic 1

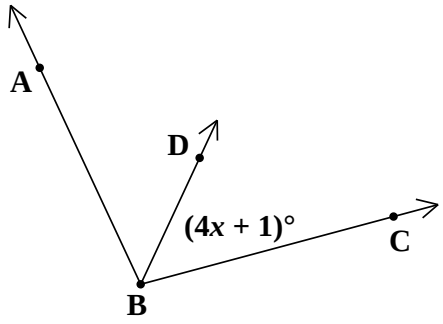
1. If DM = 25, what is the value of *r*? ***r* =** _____



2. Points P, Q, and S are collinear. What is $m\angle PQR$? ***m*∠PQR =** _____



3. Find the value of *x* if $m\angle ABC = 106°$ and $\overrightarrow{BD}$ bisects $\angle ABC$ in the figure below. ***x* =** _____

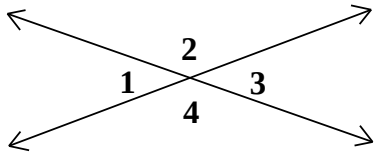


4. Use the coordinates of M and N to find the midpoint. M(–2, 5) and N(–8, –4) (_____, _____)

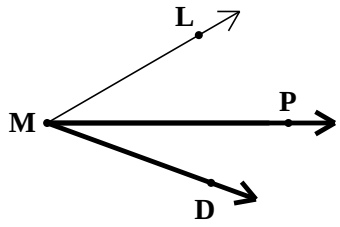
5. $\overrightarrow{BD}$ bisects ∠ABC so that $m\angle CBD = (x + 4)$ and $m\angle ABD = (2x - 12)$. What is x? **x =** _____

6. What is the distance between points F(2, 7) and G(4, 14)? Round your answer to the nearest tenth, if necessary. _____

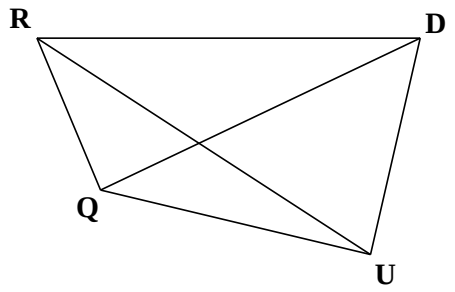
7. The statement "Angle 1 is congruent to Angle 3" is justified by which theorem?



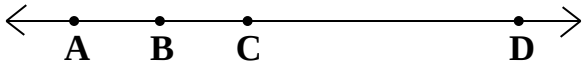
8. Name the angle in **bold**. _____



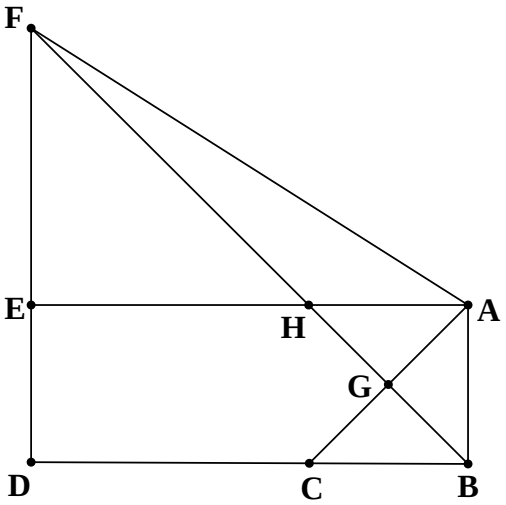
9. In the diagram below, which angles must be congruent for $\overrightarrow{DQ}$ to bisect ∠RDU?



10. Use the figure below to answer the question. If AB = BC, CD is three times as long as AB, and AD = 210, find the length of BC. **BC =** _____



Use the diagram to answer question 11.



11. Name 4 collinear points. _____, _____, _____, _____

12. Rewrite the statement in conditional form: **All teachers love math.**

13. Write the converse of the following statement: **An angle that measures 90° is a right angle.**

14. $\overrightarrow{BD}$ divides **right angle** ∠ABC into **two parts**. The measure of ∠ABD is four times as large as the measure of ∠DBC.

(a) Write an equation that represents the given information.
(b) Find the measure of ∠ABD. Show work that justifies your answer.