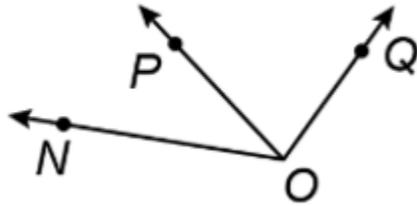
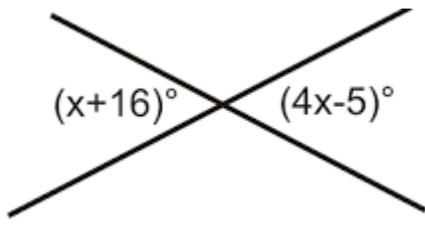


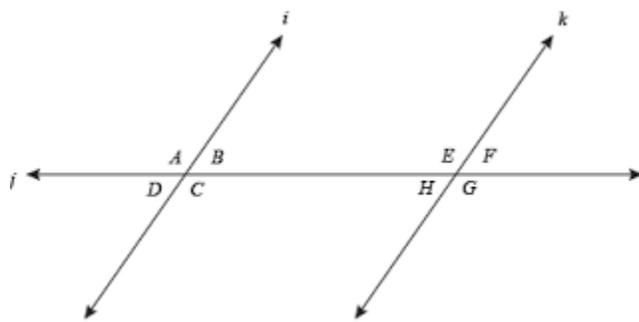
1. If $m\angle NOP = 30^\circ$ and $m\angle NOQ = 100^\circ$, what is $m\angle POQ$? (MC)



2. What is the value of x ? (SA)

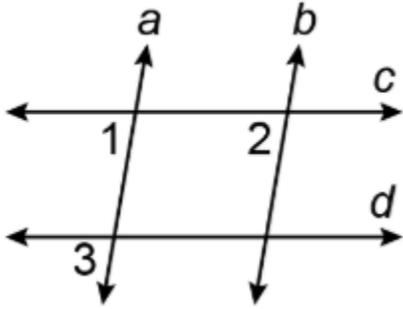


3. Which pairs of angles are alternate interior angles? Select all that apply.



- A. $\angle B$ and $\angle H$
- B. $\angle B$ and $\angle G$
- C. $\angle A$ and $\angle G$
- D. $\angle C$ and $\angle E$
- E. $\angle A$ and $\angle E$

4. If $a \parallel b$ and $m\angle 2 = 75^\circ$, what is $m\angle 1$? (MC)



5. Which equation represent a line that is perpendicular to the line with equation $y = 3x + 9$? Select all that apply.

A. $y = \frac{-1}{3}x - 5$

B. $y = \frac{1}{3}x + 8$

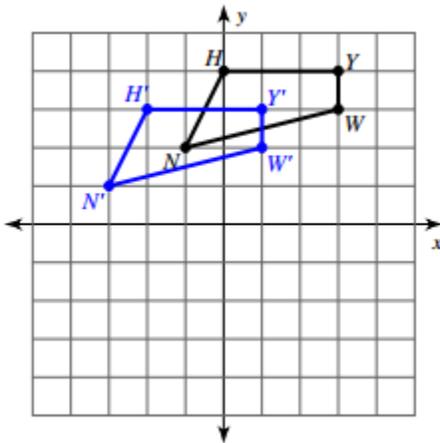
C. $x + 3y = -4$

D. $-x - 3y = 24$

E. $-x + 3y = 7$

6. If point B has coordinates $(-7, -5)$, what are the coordinates of the point when it is reflected across the y -axis? (MC)

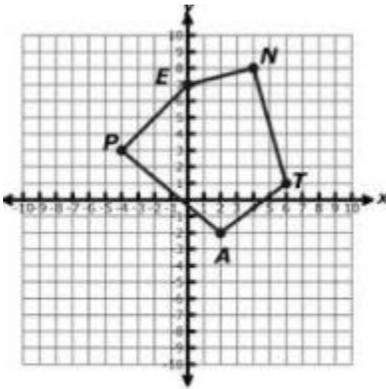
7. What translation rule maps $NHYW$ to $N'H'Y'W'$? (MC)



8. Triangle ABC has vertices A(2,4), B(3,7) and C(8,1). What are the coordinates of B' after the translation describe by the rule $T_{(2,5)}$? (MC)

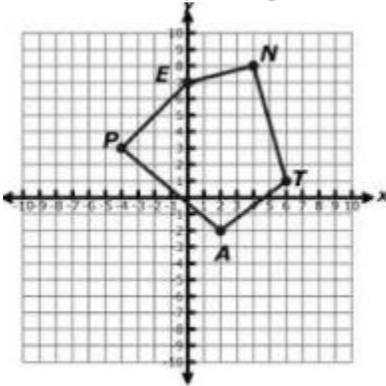
B' =

9. Use the pentagon PENTA (MC)



What are the coordinates of N' after the pentagon is rotated 90° about the origin?

10. Use the pentagon PENTA (MC)



What are the coordinates of E' after the pentagon is rotated 270° about the origin?

11. How many lines of symmetry does a regular hexagon have? (MC)



12. Which letter has rotational symmetry? (MC)

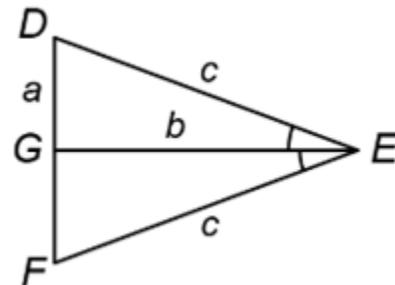
- A. G
- B. M
- C. N
- D. Q

13. Triangle JKL is reflected across the x-axis to create Triangle J'K'L'. Choose the words to create a true statement.

The two triangles are /are not congruent because the transformation is a rigid transformation which changes / preserves the lengths of the sides and measures of all angles.

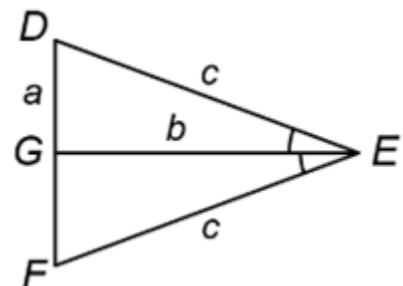
14. Use $\triangle DEF$. (MC)

What is $m\angle DFE$ if $m\angle DEG = 24^\circ$?

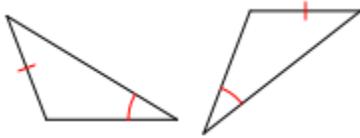


15. Use $\triangle DEF$. (MC)

Given that $m\angle EGF = 90^\circ$. What is the value of b is 10, and $c=48$? Round to the nearest whole number.

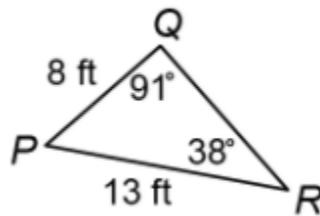
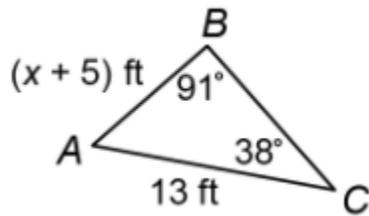


16. Which criterion can be used to prove the triangles are congruent? (MC)



- A. SSS
- B. SAS
- C. SSA
- D. none of these

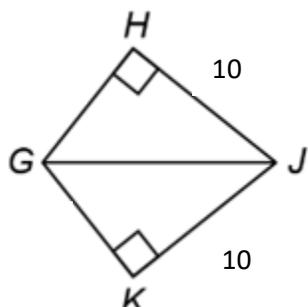
17. What is the value of x ? (SA)



18. Which criteria can be used to prove triangles are congruent? Select all that apply.

- A. HL
- B. SAS
- C. SSA
- D. AAS
- E. AAA
- F. SSS
- G. ASA

19. Which theorem can you use to prove that $\triangle GHJ$ and $\triangle GKJ$ are congruent? (MC)



20. Use the diagram shown.

Which side is congruent to \overline{FH} ? (MC)

