Chapter 10 Review

Name _____

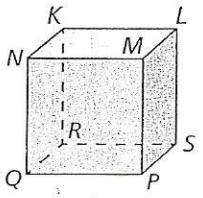
1. Looking at the diagram, are the following parallel, perpendicular or skew? (Note: All angles are right angles)

a) $\overleftrightarrow{NM}$ and $\overleftrightarrow{RS}$

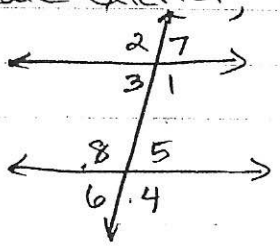
b) $\overleftrightarrow{NM}$ and $\overleftrightarrow{LS}$

c) $\overleftrightarrow{NM}$ and $\overleftrightarrow{QN}$

d) plane NMP and plane RKL



2. Identify whether corresponding, alternate interior, alternate exterior, consecutive interior or vertical angles.



a) $\angle 4$ and $\angle 2$

b) $\angle 4$ and $\angle 1$

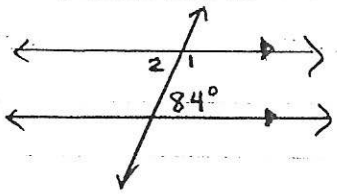
c) $\angle 8$ and $\angle 1$

d) $\angle 8$ and $\angle 4$

e) $\angle 8$ and $\angle 3$

Find the measures of angles 1 and 2

3.



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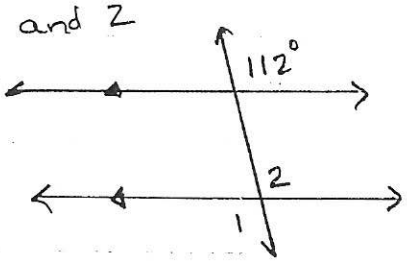
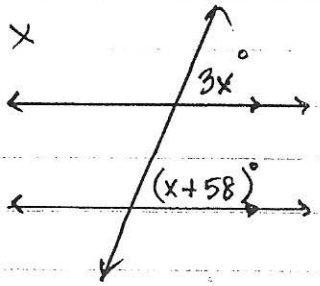


Find x

5.



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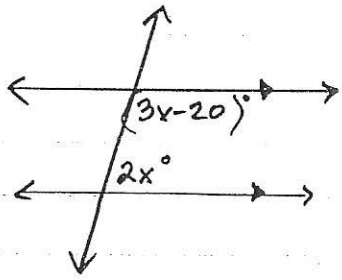
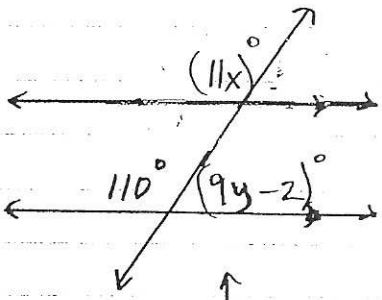
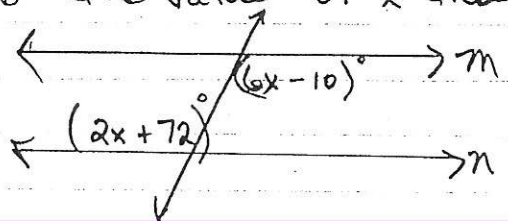


7. Find the value of x and y:

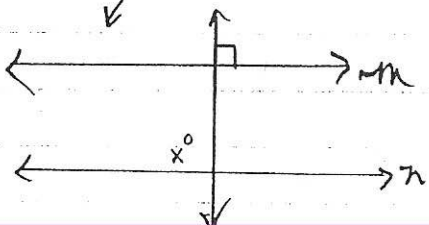


Find the value of x that makes m ∥ n

8.

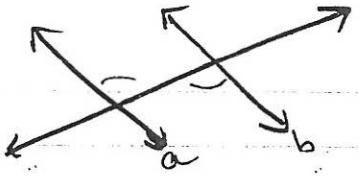


9.

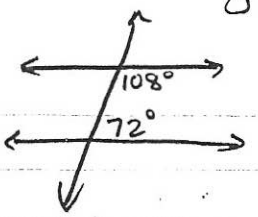


Is there enough information to prove that the lines are parallel? If so, state the theorem you would use.

10.

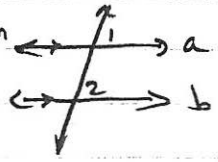


11.

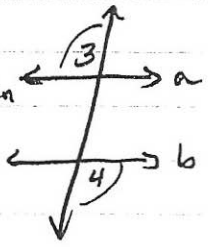


Give the reason for statement 2

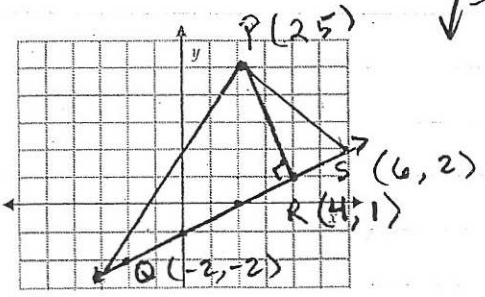
12. 1. $a \parallel b$ 1. Given
2. $\angle 1 \cong \angle 2$ 2. ?



13. 1. $\angle 3 \cong \angle 4$ 1. Given
2. $a \parallel b$ 2. ?



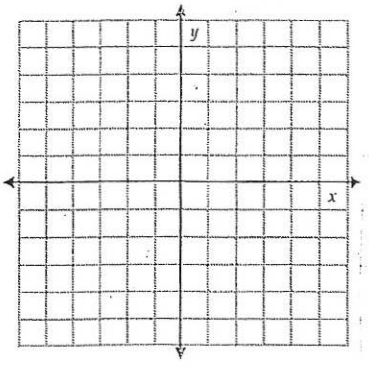
14. Find the distance from P to $\overleftrightarrow{QS}$



15. Graph the linear equations. Are the lines $\parallel$, $\perp$ or coincident?

$y = 3x + 1$

$2x + 6y = 18$



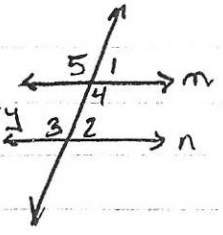
16. Write the equation of the line passing through (10,3)

a) parallel to $y = 5x + 3$

b) perpendicular to $y = 5x + 3$

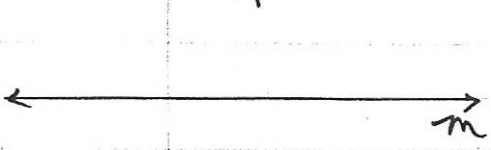
17. Solve $3(7x - 4) + 2 = 32$

18. Write a 2 column proof: Given: $\angle 5$ and $\angle 2$ are supplementary
Prove: $m \parallel n$

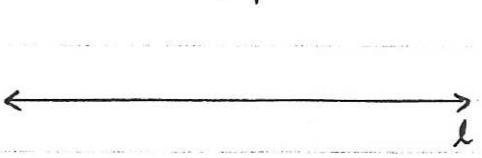


19. Construct

a) line parallel to m through P



b) line $\perp$ to ℓ through P



c) $\perp$ bisector of $\overline{AB}$