1.4 Measuring Angles (Day 2) Date: \_\_\_\_\_\_\_\_\_\_

1.5 Perpendicular & Angle Bisectors – Notes

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Learning Targets** | **Help!** | **I’m getting there…** | **I’m almost there…** | **Yes! I totally got this! ☺** |
| 1. I can define and name an angle. |  |  |  |  |
| 2. I can find the measure of an angle. |  |  |  |  |
| 3. I can apply the Angle Addition Postulate. |  |  |  |  |
| 4. I can name congruent angles. |  |  |  |  |
| 5. I can define perpendicular. |  |  |  |  |
| 6. I can define perpendicular bisector. |  |  |  |  |
| 7. I can define angle bisector. |  |  |  |  |

Warm-Up:

Solve for x.

1. 5x – 3 = 2 2. 5x – 2 = -12 3. 3(x – 4) = 15 4. 6 – (3x + 4) = -16

Definition:



\*\*Angle : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_



Example A: Name the angle two different ways.



A

C

D

B

1

2



\*\*Types of Angles:



1) 2) 3) 4)



\*\*Postulate 1 - 8: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_



Example B: Find the angle measure.



T

1) Find the m∠TSW if m∠TSR = 50 and m∠RSW = 125°.



W



R

S



2) Solve for x if m∠RQS = 2x + 4 and m∠TQS = 6x + 20. What is m∠RQS and m∠TQS? Show how you can check your answer.



S



T

Q

R

\*\*Congruent Angles: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_



Example C: Find each angle measure.



m∠AOB = 4x – 2, m∠BOC = 5x - 10, m∠COD = 2x + 14



Definitions:



\*\*Perpendicular Lines: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_



\*\*Perpendicular Bisector: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_



\*\*Angle Bisector: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_



Example D:

1)  bisects ∠JKL so that m∠JKN = 5x – 25 and m∠NKL = 3x + 5. Solve for x and find m∠JKN.



2) is the perpendicular bisector of . The intersection of and is F. TN is 14. What is TF? Draw a picture and solve.