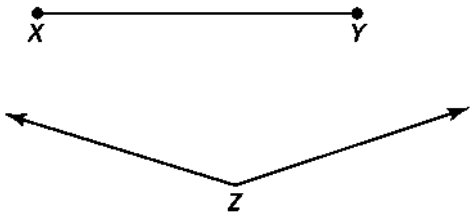
Name_____ Class_____ Date_____

Practice 1-7

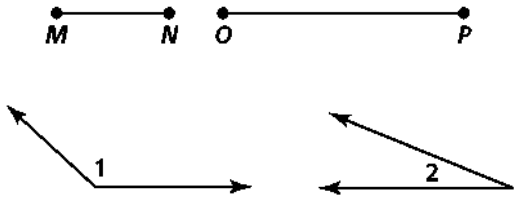
Basic Constructions

Construct each figure as directed.

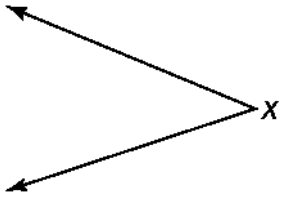


1. Construct $\overline{AB}$ congruent to $\overline{XY}$. Check your work with a ruler.
2. Construct the perpendicular bisector of $\overline{XY}$.
3. Construct a triangle whose sides are all the same length as $\overline{XY}$.
4. Construct the angle bisector of $\angle Z$.

Check your work with a protractor.



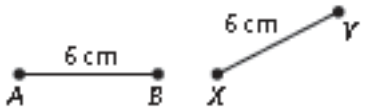
5. **a.** Construct a 90° angle.
   b. Construct a 45° angle.
6. Construct $\overline{AB}$ so that $AB = MN + OP$.
7. Construct $\overline{KL}$ so that $KL = OP - MN$.
8. Construct $\angle A$ so that $m\angle A = m\angle 1 + m\angle 2$.
9. Construct $\angle B$ so that $m\angle B = m\angle 1 - m\angle 2$.



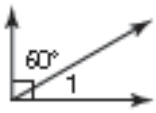
10. Construct $\angle C$ so that $m\angle C = 2m\angle 2$.
11. Construct the angle bisector of $\angle X$.
12. Construct $\angle W$ so that $m\angle W = 2m\angle X$.
13. Construct $\angle Z$ so that $m\angle Z = \frac{1}{2}m\angle X$.

Write *true* or *false*.

14. $\overline{AB} \cong \overline{XY}$



15. $m\angle 1 = 40$



16. If $m\angle A = 80$, then $\angle A$ is obtuse.
17. The perpendicular bisector of a line segment creates four 90° angles.
18. If $m\angle 1 = 45$ and $m\angle 2 = m\angle 1$, then $m\angle 1 + m\angle 2 = 90$.
19. For a given $\angle A$, $\frac{1}{2}$?$m\angle A$ = 2 ?$m\angle A$.
20. If angles 3 and 4 are complementary and $m\angle 3 = m\angle 4$, then $m\angle 4 = 45$.

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