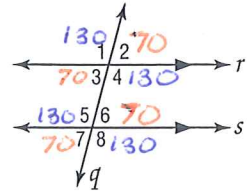NAME _Answer Key_____ DATE _____ PERIOD ____
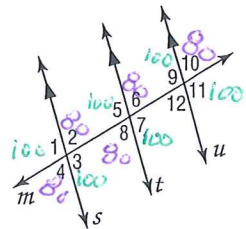
3-2 Skills Practice

Angles and Parallel Lines

In the figure, $m\angle2 = 70$. Find the measure of each angle.

1. $\angle3$ 70°

2. $\angle5$ 130°

3. $\angle8$ 130°

4. $\angle1$ 130°

5. $\angle4$ 130°

6. $\angle6$ 70°
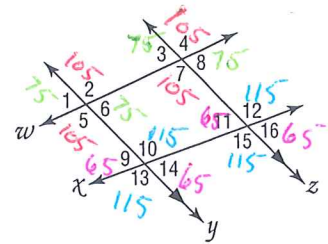
In the figure, $m\angle7 = 100$. Find the measure of each angle.

7. $\angle9$ 100°

8. $\angle6$ 80°

9. $\angle8$ 80°

10. $\angle2$ 80°

11. $\angle5$ 100°

12. $\angle11$ 100°

In the figure, $m\angle3 = 75$ and $m\angle10 = 115$. Find the measure of each angle.

13. $\angle2$ 105°

14. $\angle5$ 105°

15. $\angle7$ 105°

16. $\angle15$ 115°

17. $\angle14$ 65°

18. $\angle9$ 65°

Lesson 3-2

Find x and y in each figure.

19.

$40 + 5x = 180$
$5x = 140$
$\dfrac{5x}{5} = \dfrac{140}{5}$
$\boxed{x = 28}$

$3y - 1 = 140$
$+1 \quad +1$
$\dfrac{3y}{3} = \dfrac{141}{3}$

20.

$\quad \dfrac{47}{3\overline{)141}} \quad \dfrac{15}{6\overline{)90}}$

$8x - 10 = 7x$
$-7x \qquad -7x$
$\rule{3cm}{0.4pt}$
$1x - 10 = 0$
$+10 \quad +10$
$\boxed{1x = 10}$

$6y + 20 + 70 = 180$
$6y + 90 = 180$
$-90 \quad -90$
$\dfrac{6y}{6} = \dfrac{90}{6}$
$\boxed{y = 15}$

$\boxed{y = 47}$

Find $m\angle1$ in each figure.

21.

60
$+20$
$\boxed{80°}$

22.

40
$+32$
$\boxed{72°}$