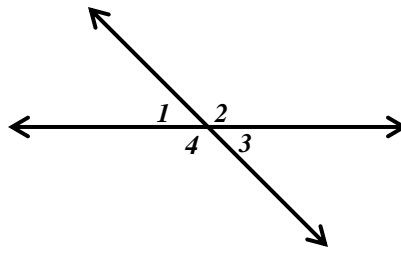


Math 2 Unit 1 Worksheet 1
Angle Pairs Relationship

Name: _____
 Date: _____ Per: _____

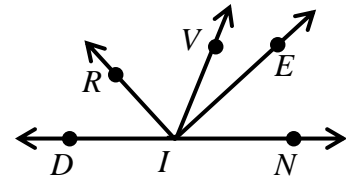
Use the diagram to decide whether the statement is *true* or *false*.

- If $m\angle 1 = 47^\circ$, then $m\angle 2 = 43^\circ$
- If $m\angle 1 = 47^\circ$, then $m\angle 3 = 43^\circ$
- $m\angle 1 + m\angle 3 = m\angle 2 + m\angle 4$
- $m\angle 1 + m\angle 4 = m\angle 2 + m\angle 3$



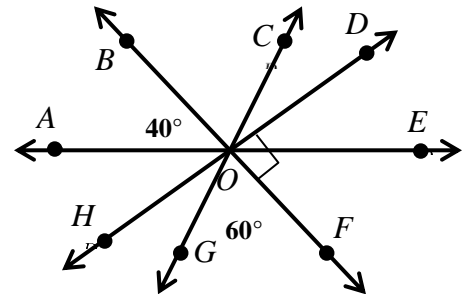
In the diagram, $m\angle RIE = 90^\circ$

- $\angle RIV$ is complementary to _____.
- $\angle RID$ is supplementary to _____.
- $\angle DIR$ is adjacent to angle _____.
- If $m\angle VIN = 80^\circ$ and $m\angle VIE = 32^\circ$, then $m\angle NIE =$ _____



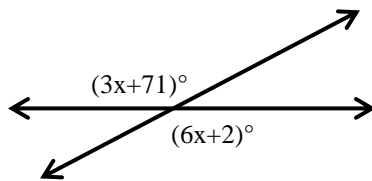
In the diagram, $m\angle DOF = 90^\circ$, $m\angle BOA = 40^\circ$, and $m\angle GOF = 60^\circ$
 Find the measures of the following angles.

- | | |
|---------------------------|---------------------------|
| 9. $m\angle BOD =$ _____ | 10. $m\angle FOE =$ _____ |
| 11. $m\angle GOE =$ _____ | 12. $m\angle BOC =$ _____ |
| 13. $m\angle COD =$ _____ | 14. $m\angle DOE =$ _____ |
| 15. $m\angle AOD =$ _____ | 16. $m\angle BOG =$ _____ |



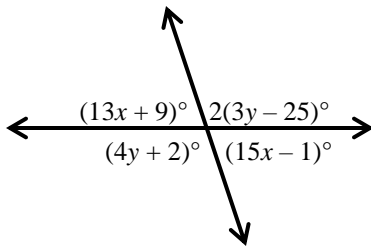
Find the value of x

17.

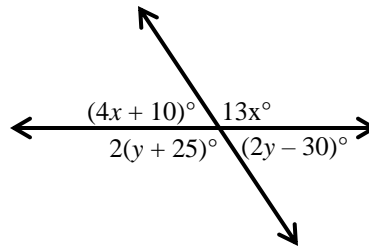


Find the value of the variables and the measure of each angle in the diagram.

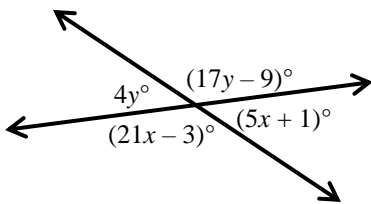
18.



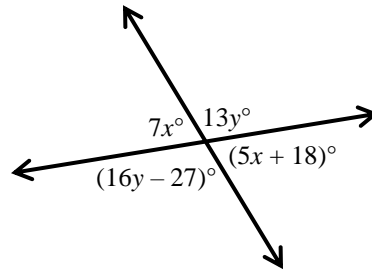
19.



20.



21.



If $\angle C$ and $\angle D$ are complementary, complete the following.

22. $m\angle C = (3x)^\circ$, $m\angle D = (x - 6)^\circ$
 $x = \underline{\hspace{1cm}}$, $m\angle C = \underline{\hspace{1cm}}$, $m\angle D = \underline{\hspace{1cm}}$

23. $m\angle C = (x + 10)^\circ$, $m\angle D = (2x - 7)^\circ$
 $x = \underline{\hspace{1cm}}$, $m\angle C = \underline{\hspace{1cm}}$, $m\angle D = \underline{\hspace{1cm}}$

If $\angle E$ and $\angle F$ are supplementary, complete the following.

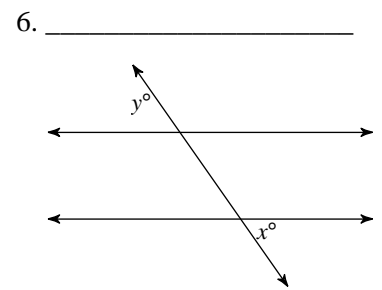
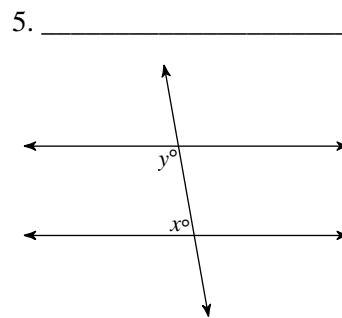
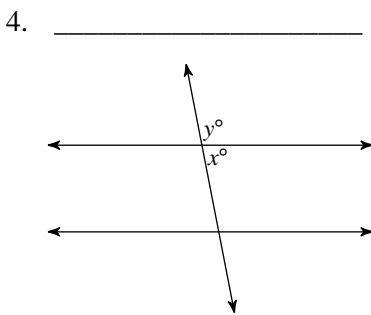
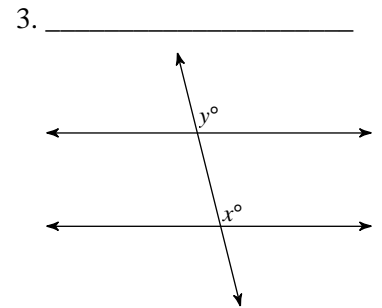
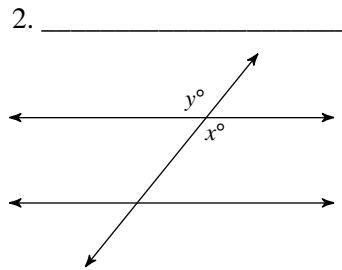
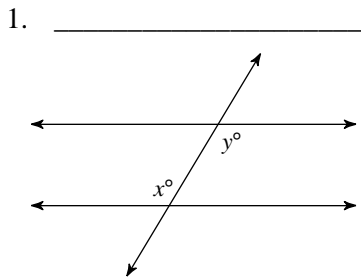
24. $m\angle E = (5y - 3)^\circ$, $m\angle F = (2y + 1)^\circ$
 $y = \underline{\hspace{1cm}}$, $m\angle E = \underline{\hspace{1cm}}$, $m\angle F = \underline{\hspace{1cm}}$

25. $m\angle E = (y - 9)^\circ$, $m\angle F = (4y + 14)^\circ$
 $y = \underline{\hspace{1cm}}$, $m\angle E = \underline{\hspace{1cm}}$, $m\angle F = \underline{\hspace{1cm}}$

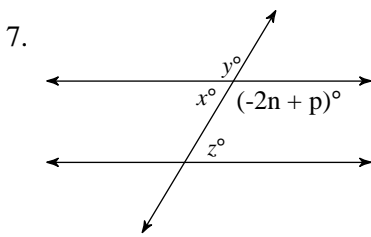
Math 2 Unit 1 Worksheet 2
Parallel Line Postulates Review

Name: _____
Date: _____ **Per:** _____

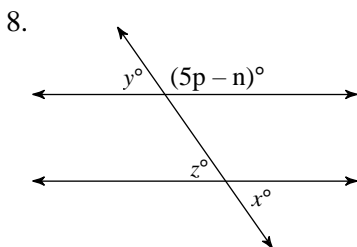
[1-6] Identify each pair of angles as corresponding, alternate interior, alternate exterior, consecutive interior, vertical, or adjacent.



[7-8] The figures below each show one pair of parallel lines intersecting a transversal. Find the values for x, y, and z when $n = -50$, $p = 12$.



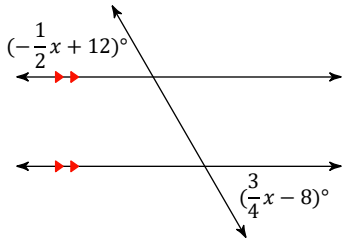
$x^\circ =$ _____
 $y^\circ =$ _____
 $z^\circ =$ _____



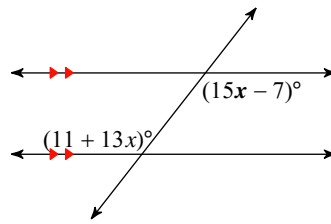
$x^\circ =$ _____
 $y^\circ =$ _____
 $z^\circ =$ _____

[9-12] Given the lines are parallel, find the value of x .

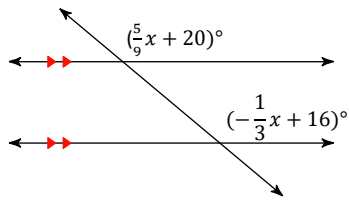
9.



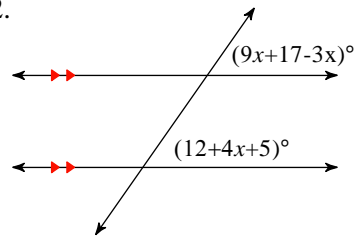
10.



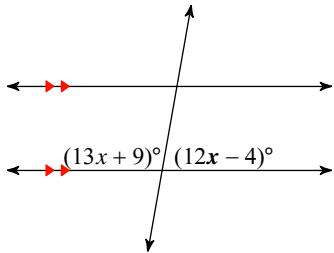
11.



12.



[13] Find x and the measure of the indicated angles.



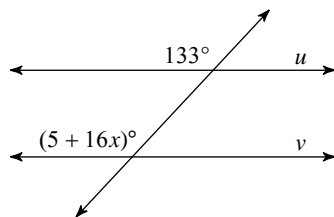
$$x = \underline{\hspace{2cm}}$$

$$(13x + 9)^\circ = \underline{\hspace{2cm}}$$

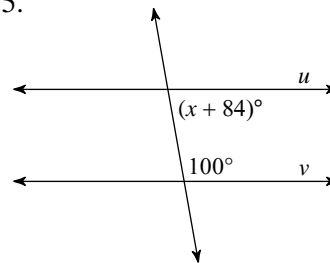
$$(12x - 4)^\circ = \underline{\hspace{2cm}}$$

[14-17] Find the value of x that makes line u and v parallel.

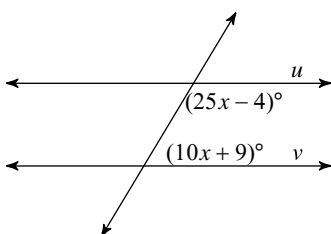
14.



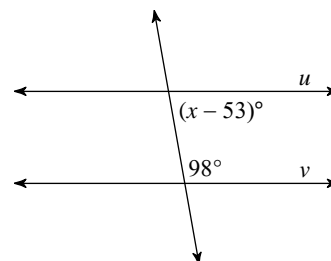
15.



16.



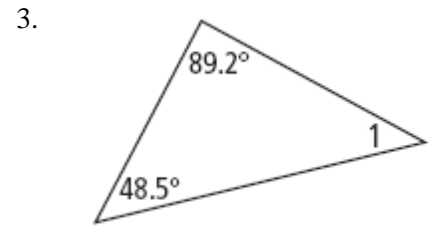
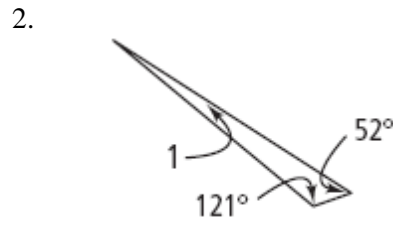
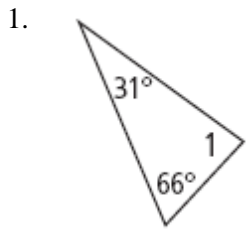
17.



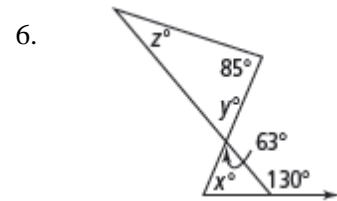
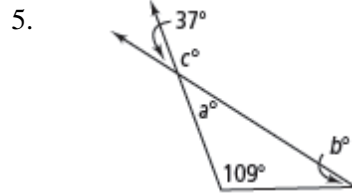
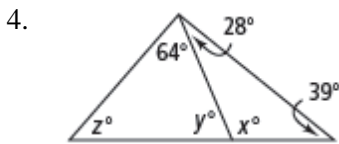
Math 2 Unit 1 Worksheet 3
Triangle Sum Theorem

Name: _____
 Date: _____ Per: _____

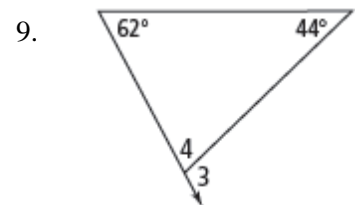
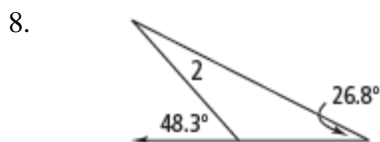
[1-3] Find $m\angle 1$



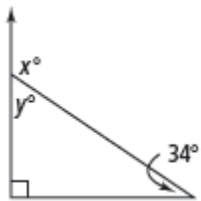
[4-6] Find the value of each variable.



[7-9] Find each missing angle measure.

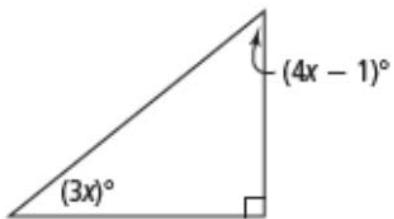


10. What are the values of x and y in the right triangle?

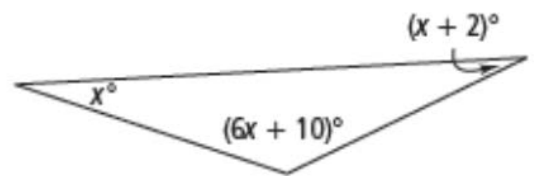


[11-14] Find the values of the variables and the measures of the angles.

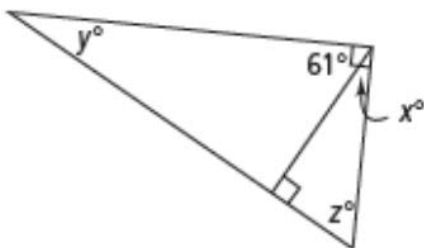
11.



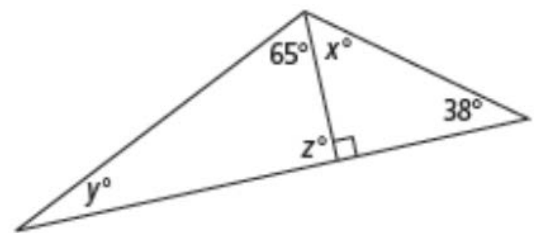
12.



13.



14.



Math 2 Unit 1 Worksheet 4
Radicals

Name: _____
Date: _____ Per: _____

Simplify to simplest radical form. Show all valid and appropriate work.

1. $\sqrt{36}$

2. $\sqrt{24}$

3. $\sqrt{60}$

4. $-\sqrt{126}$

5. $\sqrt{147}$

6. $\pm\sqrt{216}$

7. $\sqrt{324}$

8. $-\sqrt{600}$

9. $4\sqrt{20}$

10. $-6\sqrt{54}$

11. $7\sqrt{64}$

12. $\pm 9\sqrt{120}$

13. $\sqrt{3} \cdot \sqrt{6}$

14. $4\sqrt{6} \cdot \sqrt{27}$

15. $2\sqrt{5} \cdot 3\sqrt{35}$

16. $-3\sqrt{8} \cdot 3\sqrt{32}$

17. $7\sqrt{3} \cdot 2\sqrt{15}$

18. $-\sqrt{12} \cdot \sqrt{18}$

19. $\sqrt{2} \cdot 2\sqrt{3} \cdot \sqrt{30}$

20. $\sqrt{22} \cdot \sqrt{33}$

21. $4\sqrt{6} \cdot 4\sqrt{6}$

22. $5\sqrt{2} \cdot 5\sqrt{2}$

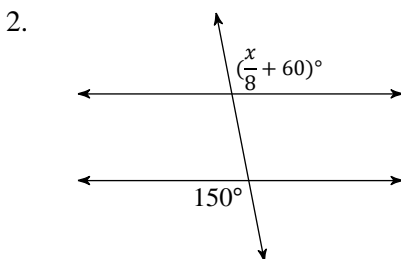
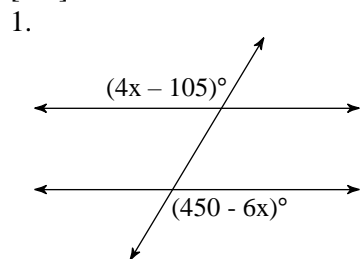
23. $(3\sqrt{7})^2$

24. $(4\sqrt{5})^2$

Math 2 Unit 1
Review Worksheet

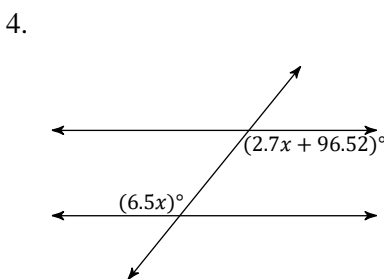
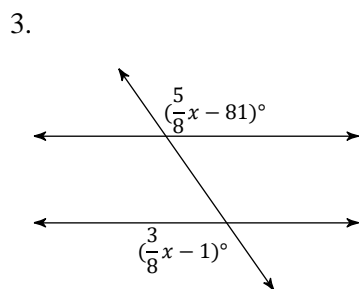
Name: _____
Date: _____ Per: _____

[1-4] Find the value of x that makes lines parallel.



1. _____

2. _____



3. _____

4. _____

[5-13] Simplify.

5. $\pm 2\sqrt{28}$

6. $-\sqrt{80}$

7. $7\sqrt{52}$

5. _____

6. _____

7. _____

8. $-6\sqrt{6} \cdot 2\sqrt{3}$

9. $\sqrt{10} \cdot \sqrt{15} \cdot \sqrt{5}$

10. $(-6\sqrt{21}) \cdot (-2\sqrt{14})$

8. _____

9. _____

10. _____

11. $-9\sqrt{252}$

12. $5\sqrt{2} \cdot 5\sqrt{2}$

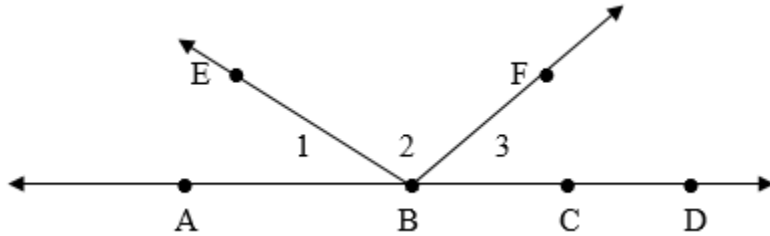
13. $(3\sqrt{6})^2$

11. _____

12. _____

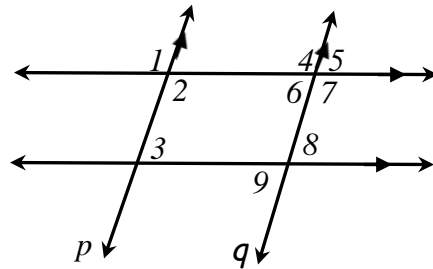
13. _____

[14-20] Use the figure to answer the questions.



14. Name the vertex and the sides of $m\angle 3$. 14. _____
15. Name a linear pair. 15. _____
16. Name two pairs of opposite rays. 16. _____
17. What angle is adjacent to $\angle FBD$? 17. _____
18. What angle is formed by combining angles 1 and 2? 18. _____
19. Find $m\angle ABF$ if $m\angle FBC = 48^\circ$. 19. _____
20. $m\angle 1 = (2x - 19)^\circ$, $m\angle 2 = (5x)^\circ$, $m\angle 3 = (2x + 1)^\circ$ Find $m\angle 3$. 20. _____

[21-26] Use the figure to answer the questions.



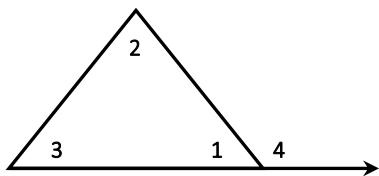
[21-25] Name two pairs of each type of angles

21. Corresponding 22. Alternate interior 23. Vertical
 _____ & _____ _____ & _____ _____ & _____

24. Alternate exterior 25. Same-side interior (consecutive interior)
 _____ & _____ _____ & _____

26. Suppose $m\angle 9 = 78^\circ$ and $m\angle 6 = (10x + 8)^\circ$ find the value of x and the $m\angle 6$?
 $x =$ _____
 $m\angle 6 =$ _____

[27-30] In a triangle, $\angle 1$, $\angle 2$, and $\angle 3$ are interior angles, and $\angle 4$ is an exterior angle with remote interior angles $\angle 2$, $\angle 3$. Find the missing angles measures. Show all work for full credit.



27. $m\angle 2 = 60^\circ$ and $m\angle 3 = 80^\circ$

28. $m\angle 4 = 100^\circ$ and $m\angle 2 = 40^\circ$

27. $m\angle 1 = \underline{\hspace{2cm}}$

$m\angle 4 = \underline{\hspace{2cm}}$

28. $m\angle 1 = \underline{\hspace{2cm}}$

$m\angle 3 = \underline{\hspace{2cm}}$

29. $m\angle 1 = 75^\circ$ and $m\angle 3 = 20^\circ$

30. $m\angle 4 = 110^\circ$ and $m\angle 3 = 70^\circ$

29. $m\angle 2 = \underline{\hspace{2cm}}$

$m\angle 4 = \underline{\hspace{2cm}}$

30. $m\angle 1 = \underline{\hspace{2cm}}$

$m\angle 3 = \underline{\hspace{2cm}}$