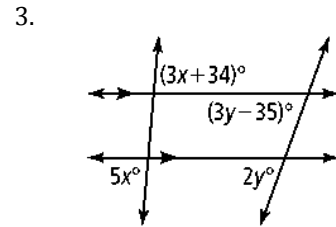# Math 3
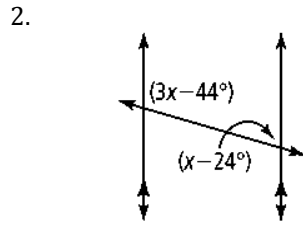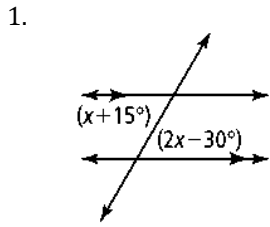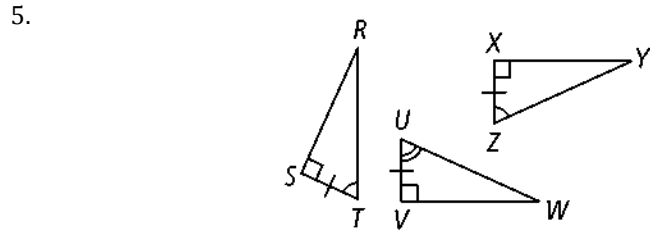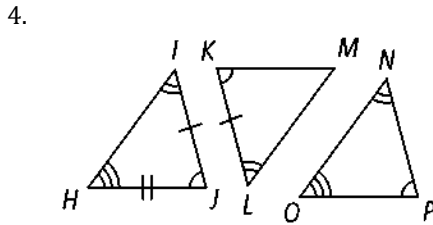## Unit 6 Test Review (1)

Name:_____

Date:_____

**Directions:** Find the value of each variable. Then find the measure of each labeled angle.

1.



$(x+15°)$
$(2x-30°)$

2.



$(3x-44°)$
$(x-24°)$

3.



$(3x+34)°$
$(3y-35)°$
$5x°$   $2y°$

**Directions:** Name two triangles that are congruent by ASA.

4.



I K   M N
H   J L O   P

5.



R   X   Y
U
S   Z
T V   W

**Directions:** Would you use SSS or SAS to prove these triangles congruent? If there is not enough information to prove the triangles congruent by SSS or SAS, write *not enough information.* Explain your answer.
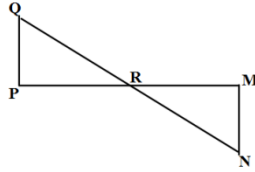
6.



7.
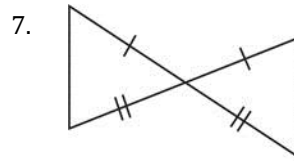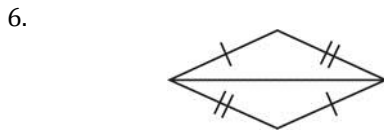


8. Given: $\overline{BD}$ is the perpendicular bisector of $\overline{AC}$
   Prove: $\triangle BAD \cong \triangle BCD$
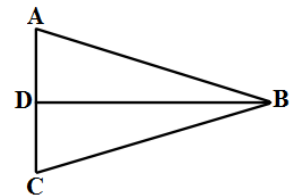


| Statements | Reasons |
|---|---|
| 1) $\overline{BD}$ is the perpendicular bisector of $\overline{AC}$. | 1) Given |
| 2) $\overline{AD} \cong \overline{CD}$ | 2) Definition of segment bisector |
| 3) $\angle ADB$ and $\angle CDB$ are right $\angle s$. | 3) Definition of perpendicular |
| 4) | 4) |
| 5) | 5) |
| 6) | 6) |

9  Given: ∠P and ∠M are right angles.
        R is the midpoint of $\overline{PM}$.
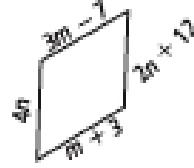   Prove: △PQR ≅ △MNR



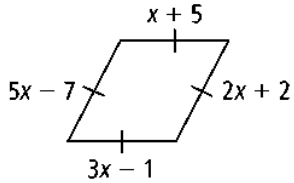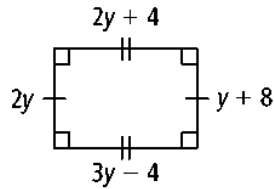**Directions:** Find the values of the variables in each parallelogram (14 is a trapezoid)..

10.



11.



12.



x + 5

5x − 7      2x + 2

3x − 1

13.



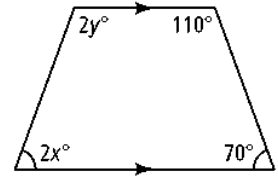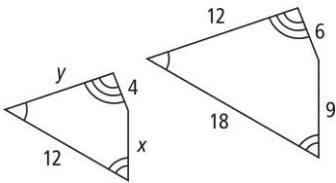2y + 4

2y          y + 8
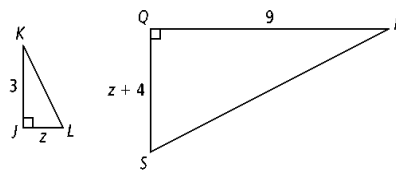
3y − 4

14.



2y°     110°

2x°     70°
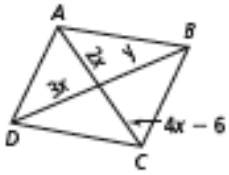
**Directions:** The polygons are similar. Find the value of each variable.

15.



12        6
y    4
        9
    18
  x
12

16.



K    Q        9      R
3    z + 4
J   z  L
            S

17.



a    15
b        10
9    12