LESSON

3-1

NAME _____ DATE _____

Practice A

For use with pages 121–125

Match the key word with its definition.

1. transversal
2. corresponding angles
3. same-side interior angles
4. alternate exterior angles
5. alternate interior angles

A. two angles that lie between the two lines on the same side of the transversal

B. two angles that occupy corresponding positions

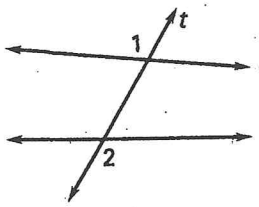
C. two angles that lie between the two lines on the opposite sides of the transversal

D. a line that intersects two or more coplanar lines at different points

E. two angles that lie outside the two lines on the opposite sides of the transversal

Describe the relationship between ∠1 and ∠2.

6.



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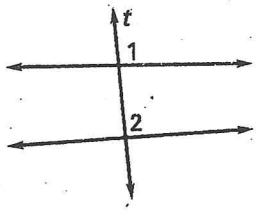

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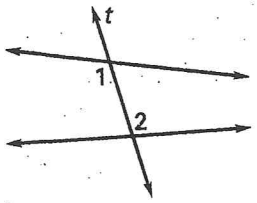

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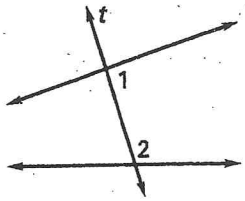
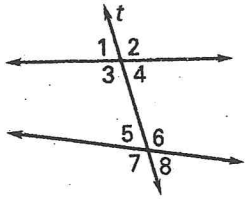


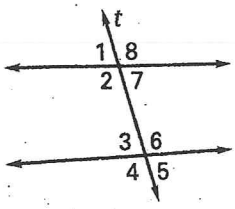
Lesson 3.3

Use the diagram shown at the right to name a pair of angles that fits the description. There is more than one correct answer.



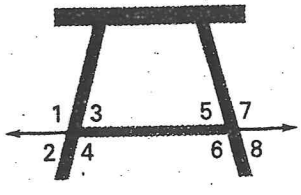
10. corresponding
11. alternate interior
12. alternate exterior
13. same-side interior

Use the diagram at the right to complete the statement using *corresponding, alternate interior, alternate exterior,* or *same-side interior*.



14. ∠6 and ∠8 are __?__ angles.
15. ∠1 and ∠5 are __?__ angles.
16. ∠2 and ∠6 are __?__ angles.
17. ∠4 and ∠8 are __?__ angles.
18. ∠6 and ∠7 are __?__ angles.
19. ∠1 and ∠3 are __?__ angles.

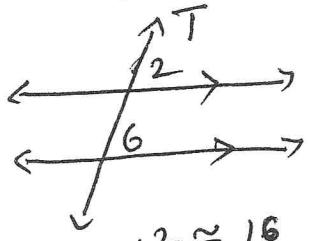
A picnic table is shown in the sketch at the right. Describe the relationship between the angles.



20. ∠3 and ∠7
21. ∠2 and ∠7
22. ∠4 and ∠6
23. ∠3 and ∠6

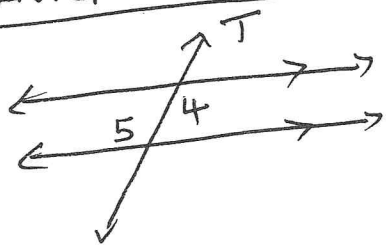
MR. REDDY'S NOTES:- # 3.2 PARALLEL LINES AND TRANSVERSALS:-

1) IF TWO PARALLEL LINES ARE CUT BY A TRANSVERSAL, THEN THE PAIRS OF CORRESPONDING ANGLES ARE CONGRUENT:



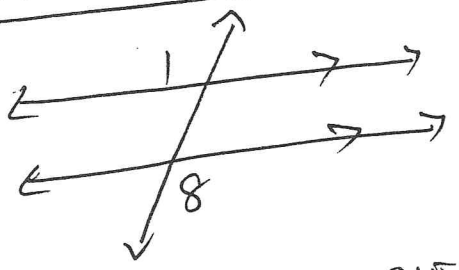
$\angle 2 \cong \angle 6$

2) IF TWO PARALLEL LINES ARE CUT BY A TRANSVERSAL, THEN THE PAIRS OF ALTERNATE INTERIOR ANGLES ARE CONGRUENT:



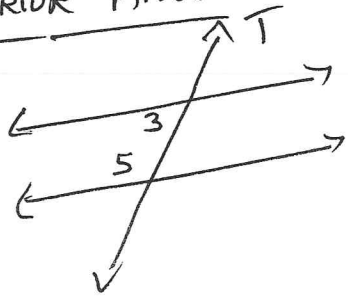
$\angle 4 \cong \angle 5$

3) IF TWO PARALLEL LINES ARE CUT BY A TRANSVERSAL, THE PAIRS OF ALTERNATE EXTERIOR ANGLES ARE CONGRUENT



$\angle 1 \cong \angle 8$

4) IF TWO PARALLEL LINES ARE CUT BY A TRANSVERSAL, THE PAIR OF CONSECUTIVE INTERIOR ANGLES ARE SUPPLEMENTARY.

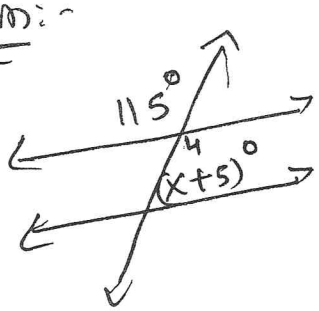


$\angle 3$ AND $\angle 5$ ARE SUPPLEMENTARY.

$\boxed{\angle 3 + \angle 5 = 180^\circ}$

PROBLEM:-

(5)



$\angle 4 = 115^\circ$ BY VERTICAL ANGLE THEOREM

$x + 5 + 115^\circ = 180^\circ$ (CONSECUTIVE INT. ANGLES)

$x + 120 = 180$

$-120 \quad -120$

$x = 60^\circ$

LESSON

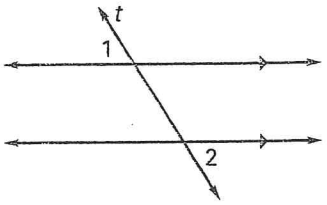
NAME _____ 3-2 DATE _____

Practice A

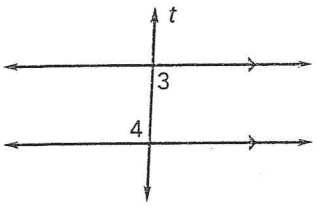
For use with pages 126–135

What postulate or theorem justifies the statement?

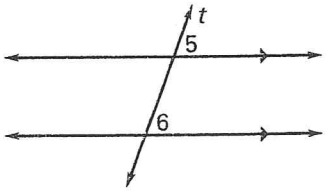
1. $\angle 1 \cong \angle 2$



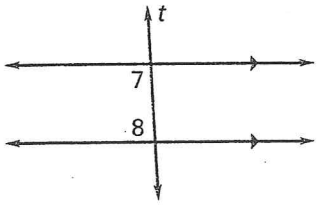
2. $\angle 3 \cong \angle 4$



3. $\angle 5 \cong \angle 6$

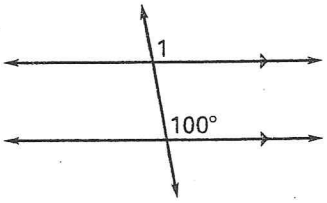


4. $m\angle 7 + m\angle 8 = 180°$



Find the measure of the numbered angle.

5.



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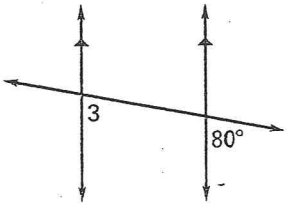

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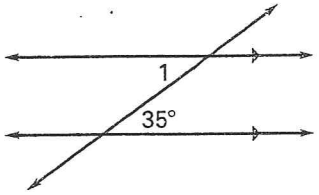

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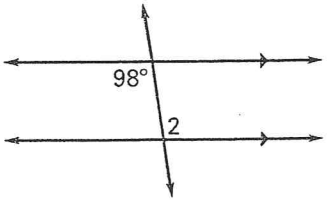

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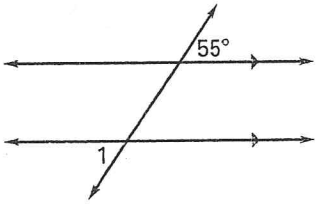

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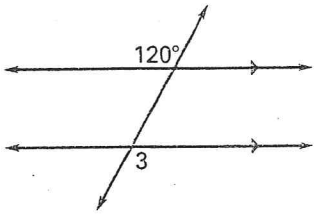

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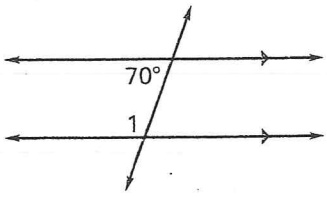

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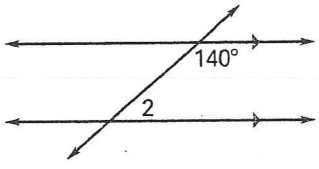
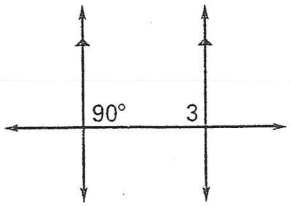
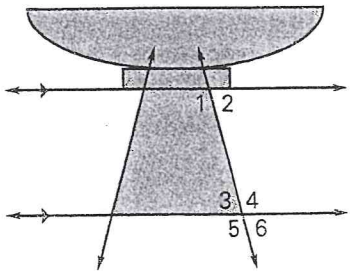


13.



Lesson 3.4

A birdbath on a pedestal is shown in the sketch at the right. The top of the pedestal is parallel to its base.



14. Name a pair of congruent corresponding angles.
15. Name a pair of congruent alternate interior angles.
16. Name a pair of supplementary same-side interior angles.