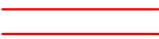


Parallel Lines

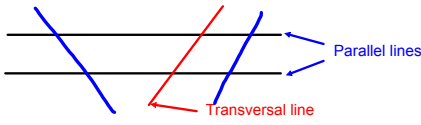
Parallel lines never intersect.

These lines are parallel.



Transversal

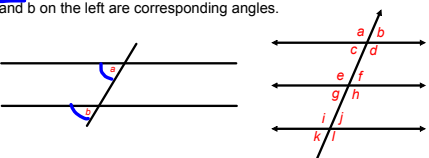
A transversal is a line that intersects at least two other lines. The intersected lines are usually parallel.



Can you draw another transversal that intersects the parallel lines above?

Corresponding Angles

Corresponding Angles are congruent angles located on the same side of the transversal and open in the same direction. Angles a and b on the left are corresponding angles.

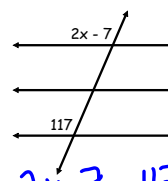


Can you find the twelve pairs of corresponding angles in the picture on the right?

1. a and e
2. f and j
3. c and k
4. d and g
5. h and l
6. d and h
7. b and f
8. b and j
9. g and k
10. a and i
11. h and l
12. e and i

Let's Practice!!

Solve for the variable.

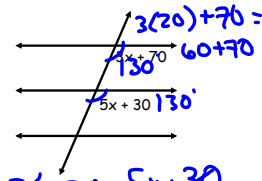


$$2x - 7 = 117$$

$$+7 \quad +7$$

$$2x = 124 \quad (x = 62)$$

Find the measure of both angles.



$$3(20) + 70 = 60 + 70 = 130$$

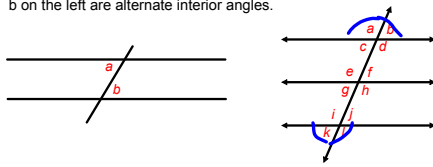
$$5x + 30 = 130$$

$$-30 \quad -30$$

$$2x = 100 \quad 40 = 2x$$

Alternate Interior Angles

Alternate Interior Angles are congruent angles located inside two parallel lines and on opposite sides of the transversal. Angles a and b on the left are alternate interior angles.

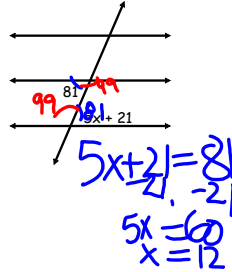


Can you find the six pairs of alternate interior angles in the picture on the right?

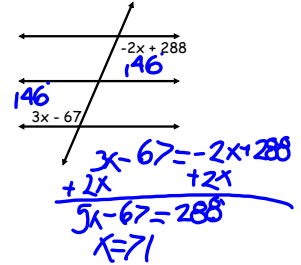
1. c and f
2. f and j
3. f and g
4. h and i
5. g and j
6. e and d

Let's Practice!!

Solve for the variable.

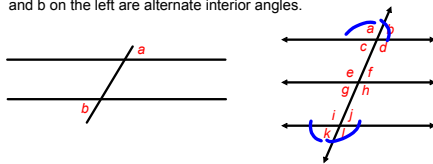


Find the measure of both angles.



Alternate Exterior Angles

Alternate Exterior Angles are congruent angles located outside two parallel lines and on opposite sides of the transversal. Angles a and b on the left are alternate exterior angles.

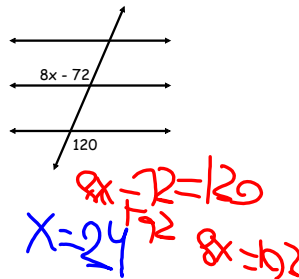


Can you find the six pairs of alternate exterior angles in the picture on the right?

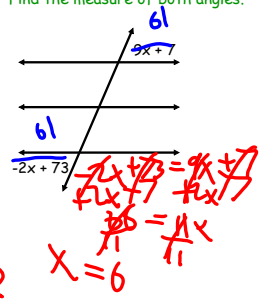
1. b and k
2. a and l
3. f and k
4. a and h
5. j and k
6. e and l

Let's Practice!!

Solve for the variable.

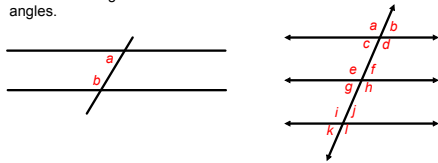


Find the measure of both angles.



Same Side Interior Angles

Same Side Interior Angles are angles that have a sum of 180° located inside two parallel lines and on the same side of the transversal. Angles a and b on the left are same side interior angles.

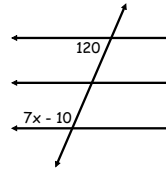


Can you find the six pairs of same side interior angles in the picture on the right?

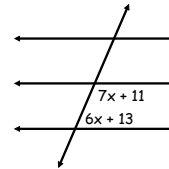
- | | |
|----------------|----------------|
| 1. ___ and ___ | 4. ___ and ___ |
| 2. ___ and ___ | 5. ___ and ___ |
| 3. ___ and ___ | 6. ___ and ___ |

Let's Practice!!

Solve for the variable.

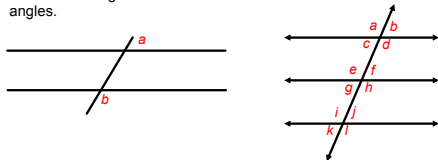


Find the measure of both angles.



Same Side Exterior Angles

Same Side Exterior Angles are angles that have a sum of 180° located outside two parallel lines and on the same side of the transversal. Angles a and b on the left are same side exterior angles.

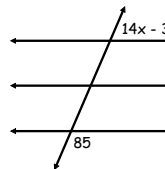


Can you find the six pairs of same side exterior angles in the picture on the right?

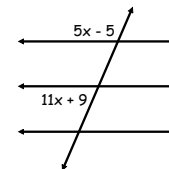
- | | |
|----------------|----------------|
| 1. ___ and ___ | 4. ___ and ___ |
| 2. ___ and ___ | 5. ___ and ___ |
| 3. ___ and ___ | 6. ___ and ___ |

Let's Practice!!

Solve for the variable.



Find the measure of both angles.



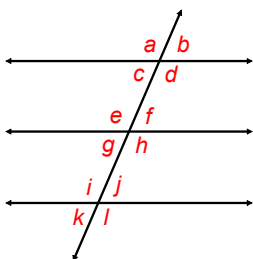
What angle(s) are corresponding to angle a?

What angle(s) are alternate interior to angle c?

What angle(s) are alternate exterior to angle b?

What angle(s) are vertical to angle f?

What angle(s) are adjacent to angle l?

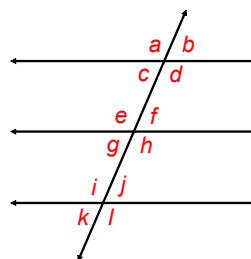


How many angles are same side exterior to angle i?

What angle(s) are supplementary to angle h?

What angle(s) are corresponding to angle e?

What angle(s) are same side interior to angle d?



1, 2, 4, 6, 8, 10, 11, 12, 14, 18, 19, 20

Attachments

Activity - Transversal Lines Intro.notebook