For all of the following problems, follow directions and make sure to identify which converse is being used.
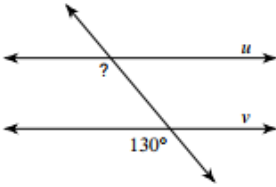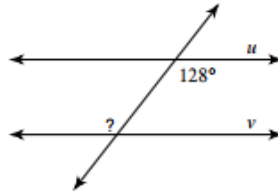
Name_____

Proving Lines Parallel

Date_____ Period_____

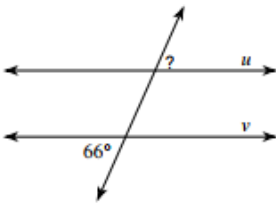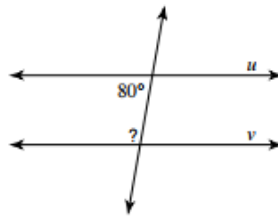**Find the measure of the indicated angle that makes lines u and v parallel.**
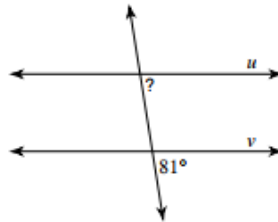
1)

2)

3)

4)

5)

6)

7)

8)

9)

130°

?

u *v*

10)

?

117°

u

v
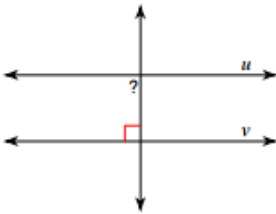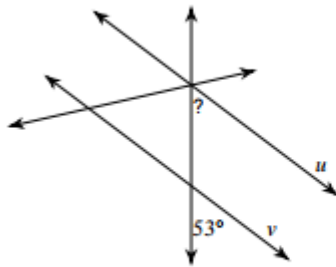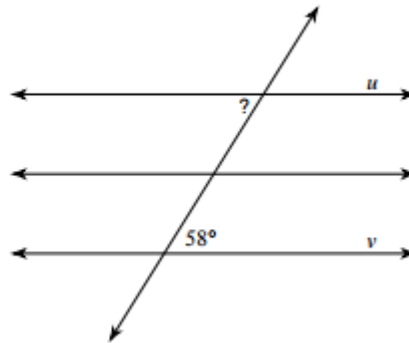
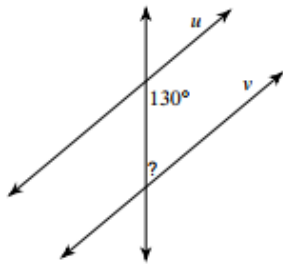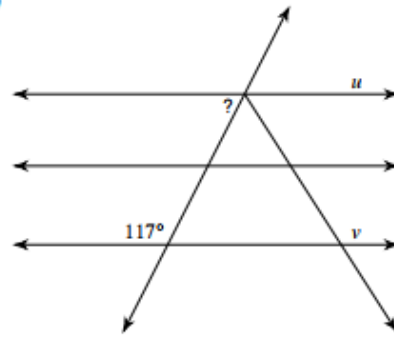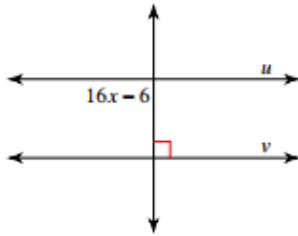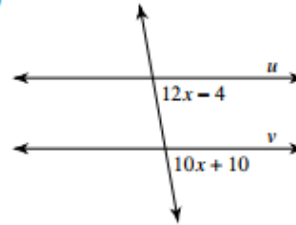**Find the value of *x* that makes lines u and v parallel.**

11)

16x − 6

u
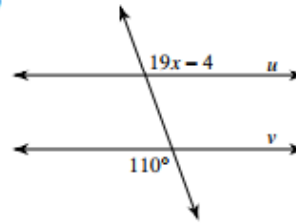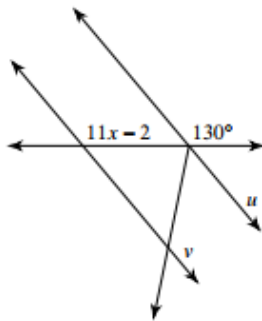
v

12)

12x − 4

10x + 10

u

v

13)

105°

x + 112

u

v

14)

19x − 4

110°

u

v

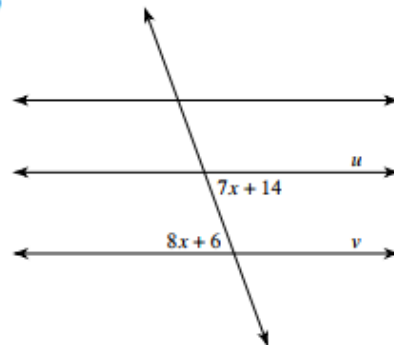15)

11x − 2   130°

u

v

16)

7x + 14

8x + 6

u

v
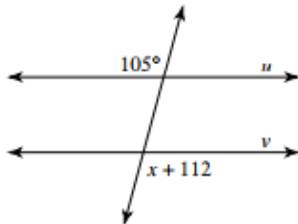
Critical thinking questions:

17) For question #16, find a value of *x* that makes lines u and v intersect.

18) Even if the lines in question #16 were not parallel, could *x* = 25? Why or why not?