****

**EX 1:** **Tell whether the angles are only adjacent, adjacent and form a linear pair, or not adjacent.**



1. ∠***AEB* and** ∠***BED***
2. ∠***AEB* and** ∠***BEC***
3. ∠***DEC* and** ∠***AEB***

**EX 2:** **Tell whether the angles are only adjacent, adjacent and form a linear pair, or not adjacent.**



1. **∠5 and ∠6**
2. ∠**7 and** ∠***SPU***
3. ∠**7 and** ∠**8**



* You can find the complement of an angle that measures *x*° by subtracting its measure from 90°, or (90 – *x*)°.
* You can find the supplement of an angle that measures *x*° by subtracting its measure from 180°, or (180 – *x*)°.

**EX 3:** **Find the measure of each of the following.**

1. complement of **∠***F*

**

1. supplement of **∠***G*



**EX 4:** **Find the measure of each of the following.**

1. complement of ∠*E*



1. supplement of ∠*F*



**EX 5:** **An angle is 10° more than 3 times the measure of its complement. Find the measure of the complement.**

**EX 6:** **Light passing through a fiber optic cable reflects off the walls of the cable in such a way that ∠1 ≅ ∠2, ∠1 and ∠3 are complementary, and ∠2 and ∠4 are complementary.**

**If m∠1 = 47°, find m∠2, m∠3, and m∠4.**



* Another angle pair relationship exists between two angles whose sides form two pairs of opposite rays. **Vertical angles** are two nonadjacent angles formed by two intersecting lines. **∠1** and **∠3** are vertical angles, as are **∠2** and **∠4**.



**EX 7:** **Name the pairs of vertical angles.**

 

**EX 8:** **Name a pair of vertical angles. Do they appear to have the same measure? Check by measuring with a protractor.**

 

**WARM UP:**