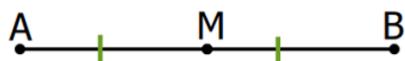


## Warm Up: Skeleton Proofs (Fill in the blank proofs)

Ex. 1 Given  $\overline{AB} = 20$ , M is the midpoint of  $\overline{AB}$ .

Prove:  $AM = 10$ .



Statements:

1.  $\overline{AB} = 20$
2. M is midpt of  $\overline{AB}$
3.  $\overline{AM} \cong \overline{MB}$
4.  $AM + MB = AB$
5.  $AM + AM = 20$
6.  $2AM = 20$
7.  $AM = 10$

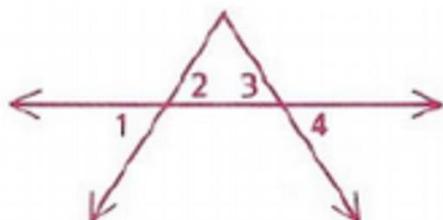
Reasons:

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_
6. \_\_\_\_\_
7. \_\_\_\_\_

Ex. 2.

Given:  $\angle 2 \cong \angle 3$

Prove:  $\angle 1 \cong \angle 4$



Statements:

1.  $\angle 2 \cong \angle 3$
2.  $\angle 2 \cong \angle 1$
3.  $\angle 4 \cong \angle 3$
4.  $\angle 1 \cong \angle 4$

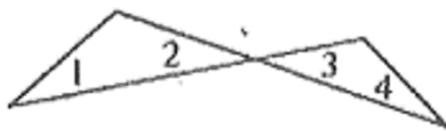
Reasons:

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_

**Ex. 3.** Given:  $\angle 1 = \angle 2$

$$\angle 3 = \angle 4$$

Prove:  $\angle 1 = \angle 4$



1. \_\_\_\_\_

1. Given

2. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_

3. substitution

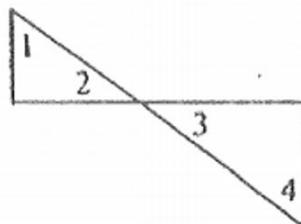
4. \_\_\_\_\_

4. \_\_\_\_\_

**Ex. 4.** Given:  $\angle 1$  and  $\angle 2$  are complements.

$\angle 3$  and  $\angle 4$  are complements.

Prove:  $\angle 1 = \angle 4$



1. \_\_\_\_\_

1. Given

2. \_\_\_\_\_

2. def of \_\_\_\_\_

3. \_\_\_\_\_

3. Substitution

4. \_\_\_\_\_

4. Vertical angles are \_\_\_\_\_

5. \_\_\_\_\_

5. Substitution

6. \_\_\_\_\_

6. Subtraction