## Unit 5- Homework for lessons 1 and 2

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## SHOW ALL SOLVING WORK ON YOUR PAPER.

## Angle Relationships: Find the measurement indicated on the right. (Drawings are not to scale.)

1. $\angle A$ and $\angle B$ are complementary angles. $m \angle A=(2 x+1)^{\circ}$ and $m \angle B=(x+5)^{\circ}$. Find the $x, m \angle A$ and $m \angle B$
2. If $m \angle A B C=6 x-7), m \angle D B C=(2 x+8)$, and $m \angle A B D=65^{\circ}$
find the value of $x$ and $m \angle D B C$.
3. Find the measure of $x$ and $m \angle A B C$.


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1. $\mathrm{x}=$ $\qquad$
$m \angle A=$ $\qquad$
$m \angle B=$ $\qquad$
2. $\mathrm{X}=$ $\qquad$
$m \angle D B C=$ $\qquad$
3. $\mathrm{x}=$ $\qquad$
4. Name: $\qquad$

$$
x=
$$

$\qquad$
5. Name: $\qquad$
$\mathrm{x}=$ $\qquad$
6. If BD bisects $\angle A B C$ and $m \angle \mathrm{ABD}=(5 \mathrm{x}-15)$ and $m \angle \mathrm{DBC}=(3 \mathrm{x}+7)$, find x and $m \angle A B C$.

7. A right triangle has hypotenuse of 12 and a leg of 7 . What is the length of the other leg?
7. $\qquad$
Multiple choice: *Use Capital Letters!** and show your work. Use the diagram of parallel lines cut by a transversal to answer questions 8 through 13.
$\qquad$ 8. What is the measure of $\angle 8$ ?
A) $45^{\circ}$
B) $145^{\circ}$
C) $55^{\circ}$
D) $135^{\circ}$
E) $155^{\circ}$

$\qquad$ 9. What is the measure of $\angle 3$ ?
A) $45^{\circ}$
B) $145^{\circ}$
C) $55^{\circ}$
D) $135^{\circ}$
E) $155^{\circ}$
$\qquad$ 10. What is the measure of $\angle 6$ ?
A) $45^{\circ}$
B) $145^{\circ}$
C) $55^{\circ}$
D) $135^{\circ}$
E) $155^{\circ}$
$\qquad$ 11. What type of angle pair is $\angle 1$ and $\angle 6$ ?
A) Alternate interior angles
B) Supplementary angles
C) Corresponding angles
D) Alternate exterior angles
E) vertical angles
12. What is the measure of $\angle 2$ ?
A) $55^{\circ}$
B) $180^{\circ}$
C) $80^{\circ}$
D) $45^{\circ}$
E) $135^{\circ}$
$\qquad$ 13. What type of angle pair is $\angle 1$ and $\angle 3$ ?
A) Alternate interior angles
B) Supplementary angles
C) Corresponding angles
E) Alternate exterior angles
E) vertical angles

