## Answer Key for 2-1 worksheet

1) If $2 x-8=26$, then $\quad X=17$
2) If it is raining, then the grass is wet
3) If a number is divisible by 10 , then it is divisible by 5 (True)

Inverse:
If a number is not divisible by 10, then it is not divisible by 5 (False)
Converse:
If a number is divisible by 5 , then it is divisible by 10 (False)
Contra-positive:
If a number is not divisible by 5 , then it is not divisible by 10 (True)
4) If $m<1=135^{\circ}$, then $m<1$ is obtuse (True)

Converse:
If $m<1$ is obtuse, then $m<1=135^{\circ}$ (False)
5) answers vary ex: $x=-10$
6)


## Answer Key for Lesson 2-2 Worksheet

1) addition property
2) division property
3) multiplication property
4) subtraction property
5) distributive property
6) transitive property
7) symmetric property

## Answer Key for Lesson 2-3 Worksheet

1) Definition of a midpoint 11) $52^{\circ}$
2) Definition of an < bisector
3) Definition of an < bisector
4) original $<42^{\circ}$
bisection two $21^{\circ}$ <'s
5) Definition of a linear pair
6) a) 12
7) Definition of a midpoint
b) 28
8) Midpoint theorem
c) 6
9) Angle addition postulate
d) 22
10) Segment addition postulate
11) $75^{\circ}$
12) $110^{\circ}$

Answer key for practice worksheet 2-4:

1) comp. $=17.5^{\circ}$ supp. $=107.5^{\circ}$
2) comp. $=90-2 y$ supp. $=180-2 y$
3) comp. $=45^{\circ}$ each supp. $=90^{\circ}$ each
4) < AFD 5) $<$ AFE \& $<E F D \quad 6)<A F B \&<A F D$
5) $<\mathrm{BFC} \&<\mathrm{DFC}$ or $<\mathrm{EFD} \&<\mathrm{EFB} \quad$ 8) $<\mathrm{BFC} \&<E F D$
6) $<\mathrm{EFB} \&<\mathrm{DFC}$
7) $35^{\circ}$ 11) $155^{\circ}$
8) $25^{\circ}$
9) $120^{\circ}$
10) $60^{\circ}$
11) $85^{\circ}$
12) $x=25$
13) $x=47$ and $y=75$
14) $x=29^{\circ}$ and comp $=61^{\circ}$
15) $x=36^{\circ}$ and supp. $=144^{\circ}$

Answer key for practice worksheet 2-4 part II:

1) $60^{\circ}$
2) $36^{\circ}$
3) $29^{\circ}$ comp. $=61^{\circ}$
4) $120^{\circ}$
5) $56^{\circ}$ supp. $=124^{\circ}$
6) $72^{\circ}$ supp $=108^{\circ}$ comp $=18^{\circ}$
7) 3
8) 5

## Answer Key for 2-5 Practice PDF Assignment

1) $d=49^{\circ} e=131^{\circ} f=49^{\circ} \quad$ 1) $x=15$
2) $i=129^{\circ} j=112^{\circ}$
3) $x=135$
4) $k=90^{\circ} \quad l=116^{\circ} \mathrm{m}=64^{\circ} \quad \mathrm{n}=86^{\circ}$
5) $x=15$
6) $o=13^{\circ} \quad p=50^{\circ} \quad q=91^{\circ}$
7) $x=40$
8) $a=120^{\circ} \quad b=60^{\circ} c=140^{\circ}$
9) $x=42$
10) $t=29^{\circ} u=29^{\circ}$
11) $x=16$
12) $v=39^{\circ} \quad w=59^{\circ} \quad x=121^{\circ}$
13) $x=33$
14) $y=59^{\circ} \quad z=93^{\circ}$
15) $x=13$
16) $a=42^{\circ} \quad b=48^{\circ} \quad c=132^{\circ}$
17) $x=23$
18) $a=60^{\circ} \quad b=50^{\circ} \quad c=80^{\circ} \quad d=100^{\circ}$
19) $x=12$
20) $h=67^{\circ} \quad g=23^{\circ}$
21) $x=11$
22) $r=79^{\circ} s=63^{\circ}$
23) $x=2$
