Solutions 3.1

1 a) isosceles b) scalene c) equilateral

2 a) acute b) obtuse c) right

3 a) right isosceles triangle b) obtuse scalene
c) acute equilateral

4 a) $180-80-50$
$= 50°$

b) $180-70-64$
$= 46°$

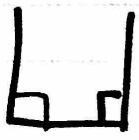
c) $180-53-104$
$= 23°$

5 a) $41+72+67=180$ ✓ yes can be drawn

b) $40+60+100=200$ × no can't be drawn since greater than 180

c) $100+45+30=175$ × no can't be drawn since less than 180°

6. no since $90+90$ is already $180°$.

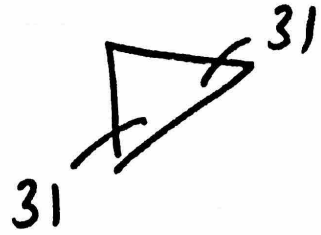


7. a) $180-60-90=30°$
b) $180-54-90=36°$
c) $180-90-45=45°$

8. a) $180-50=130$
$\frac{130}{2}=65°$

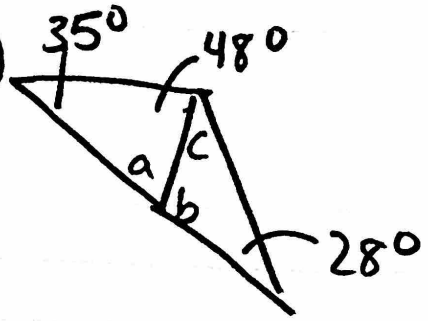
b) $180-90=90$
$\frac{90}{2}=45°$

c) $180 - 31 - 31$
$= 118°$



d) $180 - 66 - 66 = 48$

9a)

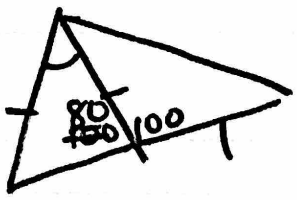


$a = 180 - 48 - 35$
$= 97°$

$a + b = 180$
$b = 180 - 97$
$= 83°$
$c = 180 - 83 - 28$
$= 69°$

b) $d = 180 - 28 - 90$
$= 62$
$e = 180 - 54 - 90$
$= 36$

c) $f = \frac{180 - 20}{2}$
$= \frac{160}{2}$
$= 80$
$g = 180 - 80$
$= 100$



$h = \frac{180 - 100}{2}$
$= 50°$