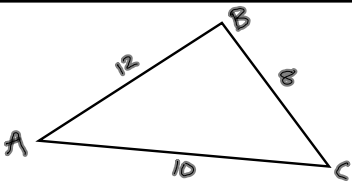


Algebra II  
pg 582 and 583

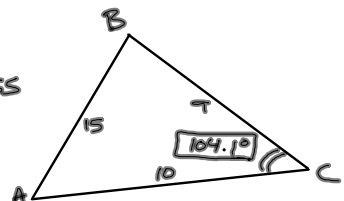
1.)	2.46	8.)	104.1°	2.)	1490 km
2.)	17.9	9.)	13.8°	3.)	32.2° 87.8° 60.0°
3.)	18.6	10.)	104.5°	4.)	180 m
4.)	2.57	11.)	87.4°	5.)	16.6 mi
5.)	42.6	12.)	29.9°	6.)	49.5°
6.)	291	13.)	7.83	7.)	63.7 ft
7.)	55.8°	14.)	7.71 cm 11.9 cm	8.)	1.52 x 10 <sup>-8</sup> cm

7)  $a=8$   
 $b=10$   
 $c=12$   
 $\angle B = \boxed{55.8^\circ}$



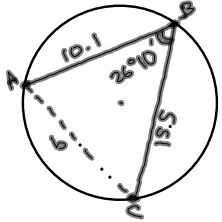
$b^2 = a^2 + c^2 - 2ac \cos B$   
 $10^2 = 8^2 + 12^2 - 2(8)(12) \cos B$   
 $100 = 208 - 192 \cos B$   
 $-108 = -192 \cos B$   
 $\frac{-108}{-192} = \cos B$      $\cos^{-1}\left(\frac{-108}{-192}\right) = 55.8^\circ$

8)  $a=9$   
 $b=10$   
 $c=15$   
 $\angle C = ?$     SSS



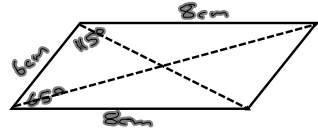
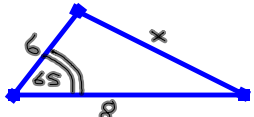
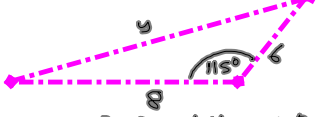
$c^2 = a^2 + b^2 - 2ab \cos C$   
 $15^2 = 9^2 + 10^2 - 2(9)(10) \cos C$   
 $225 = 81 + 100 - 180 \cos C$   
 $225 = 181 - 180 \cos C$   
 $\frac{44}{-180} = -\cos C$      $\cos C = -.24$   
 $C = \cos^{-1}(-.24)$   
 $C = 104.1^\circ$

13) SAS



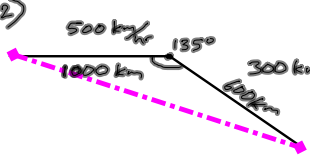
$b^2 = a^2 + c^2 - 2ac \cos B$   
 $b^2 = (15.5)^2 + (10.1)^2 - 2(15.5)(10.1) \cos(26.18^\circ)$   
 $b^2 = 61.24802986$   
 $b = \boxed{7.83 \text{ m}}$

14)

$x^2 = 6^2 + 8^2 - 2(6)(8) \cos 65^\circ$      $y^2 = 8^2 + 6^2 - 2(8)(6) \cos 115^\circ$

2)



SAS  
 $c^2 = a^2 + b^2 - 2ab \cos C$   
 $c^2 = (500)^2 + (300)^2 - 2(500)(300) \cos 135^\circ$   
 $c = 1486.1$   
 $\approx \boxed{1490 \text{ km}}$

