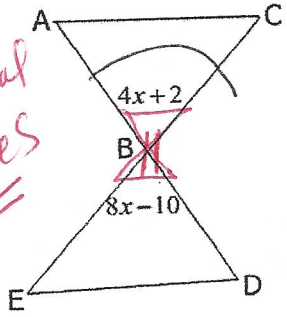
8) What is the $m\angle ABC$?



Vertical angles

$4(3)+2=$

a) 3

b) 8.2

c) 9

d) 14

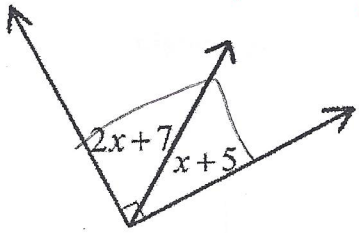
$4x+2=8x-10$

$-4x+10 \quad -4x+10$

$12=4x$

$3=x$

9) What is the value of x?



Complementary angles

a) 31°

b) 26°

c) 61°

d) 59°

$2x+7+x+5=90$

$3x+12=90$

$-12 \quad -12$

$3x=78$

$\frac{3x}{3}=\frac{78}{3}$

$x=26$

Pythagorean Theorem

1) Determine which could be the sides of a **right** triangle.

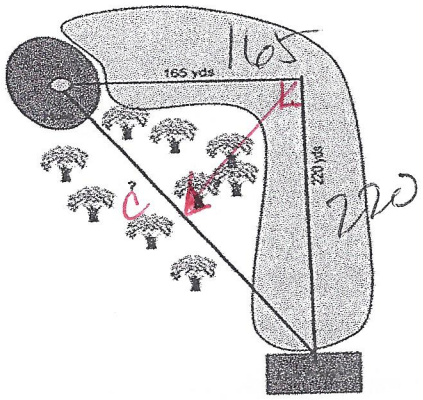
a) 7, 25, 24 $7^2+24^2=25^2$ $49+576=625$

b) 12, 8, 15 $8^2+12^2=15^2$ $64+144=225$ $208 \neq 225$

c) 42, 22, 21 $21^2+22^2=42^2$

d) 5, 7, 8 $5^2+7^2=8^2$ $25+49 \quad 64$ $74 \neq 64$

2) One hole on a golf course is designed as a dog-leg left. The distance from the tee area to bend in the fairway is 220 yards and the distance to the hole from there is 165 yards. Johnny thinks he can clear the trees and reach the hole directly from the tee. How far is the distance from the tee area to the hole?



a) 145.5 yds

b) 192.5 yds

c) 275 yds

d) 385 yds

$165^2+220^2=c^2$

$27225+48400=$

75625