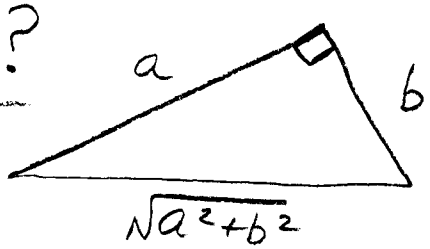
BE-Alg. 2

Tuesday 2-7-12

ACT Practice:

① In the Right △, $0 < b < a$. What is the $\cos[\tan^{-1}(\frac{a}{b})]$?



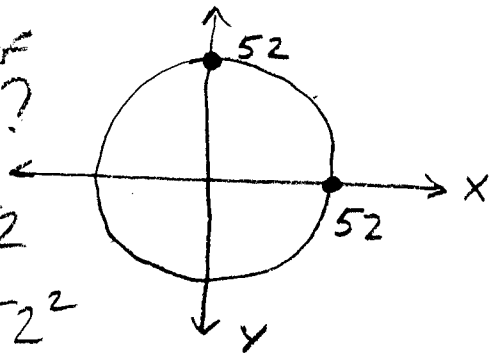
(a) $\frac{a}{b}$ (b) $\frac{b}{a}$

(c) $\frac{a}{\sqrt{a^2+b^2}}$ (d) $\frac{b}{\sqrt{a^2+b^2}}$

(E) $\frac{\sqrt{a^2+b^2}}{a}$

---

② What is the Equation of the circle shown at right?



(A) $x+y=52$ (B) $(x+y)^2=52$

(B) $(x+y)^2=52$ (C) $(x+y)^2=52^2$

(d) $x^2+y^2=52$ (E) $x^2+y^2=52^2$

---

③ What is the area of the circle in ft²?

ANS

① The Angle whose tangent is $\frac{a}{b}$ is Angle A.

$\cos A = \frac{b}{\sqrt{a^2+b^2}}$

② $x^2+y^2=52^2$

r^2

③ $A=\pi r^2$

$=3.14(52)^2$

$=8491$ units²

Simplifying Trig. Expressions

Ex

(A) $\cos\theta \tan\theta$

(B) $2(\csc^2\theta - \cot^2\theta)$

(C) $\dfrac{\sin\theta \csc\theta}{\cot\theta}$

Ans

(A) $\sin\theta$

(B) 2

(C) $\tan\theta$