TYPO

2. Calculate each side length of Rectangle ABCD and find the area.

$A(-3,4)$, $B(1,6)$, C~~$(9,0)$~~ $(5,-2)$, D~~$(5,-4)$~~ $(1,-4)$

AB $\sqrt{(-3-1)^2+(4-6)^2} = 2\sqrt{5}$

BC $\sqrt{(1-5)^2+(6--2)^2} = 4\sqrt{5}$

CD $\sqrt{(5-1)^2+(-2--4)^2} = 2\sqrt{5}$

DA $\sqrt{(1--3)^2+(-4-4)^2} = 4\sqrt{5}$

Side Lengths: AB $2\sqrt{5}$

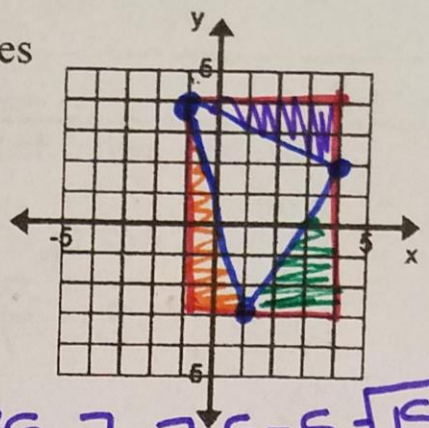
BC $4\sqrt{5}$

CD $2\sqrt{5}$

DA $4\sqrt{5}$

Area $4\sqrt{5} \cdot 2\sqrt{5} =$ 40 units^2

3. Find the area of a triangle with vertices $A(-1,4)$, $B(4,2)$, $C(1,-3)$



$\square = 5 \cdot 7 = 35$

$\triangle = \frac{1}{2} \cdot 2 \cdot 7 = 7$

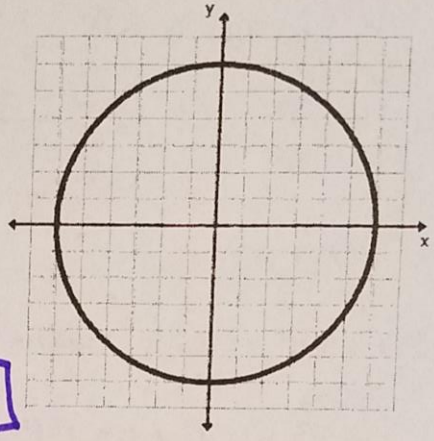
$\triangle = \frac{1}{2} \cdot 3 \cdot 5 = 7.5$

$\triangle = \frac{1}{2} \cdot 2 \cdot 5 = 5$

$35 - 7 - 7.5 - 5 =$ 15.5 units^2

4. Determine if the following points are on a circle with radius 6 and centered at the origin.

a. (3, -5)



b. $(2\sqrt{3}, 2\sqrt{6})$

$\sqrt{(2\sqrt{3}-0)^2+(2\sqrt{6}-0)^2} = 6$

Yes