

Name:

Date:

Area HW

Question 1

Triangle XYZ is equilateral with side length 10. A circle is constructed with center X and radius 10, thus passing through Y and Z. Find the area of sector YXZ of the circle.

Question 2

Farmer Fred has 50 feet of fence. He wants to enclose a semicircular area adjacent to his barn, thus using his barn as one side of the enclosure. What is the area of the space Farmer Fred can enclose?

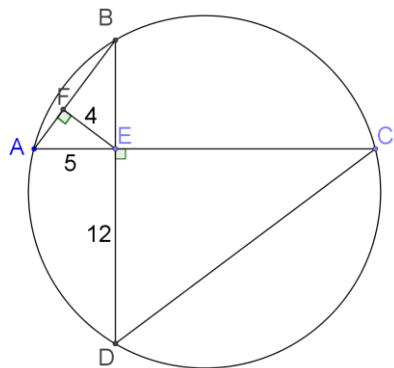
Question 3

Sector XQZ of circle Q has area $30(\pi)$. Given that the whole circle has area $100(\pi)$, find angle XQZ and angle XZQ.

Question 4

The diagram below is from your quiz. It turned out that EC was 16 and BE was $\frac{20}{3}$. Thus, the product of AC and BD was 392.

Find $(AB)(DC) + (AD)(BC)$.



Coincidence? If you're curious, look up Ptolemy's Theorem.