Right triangle trigonometry
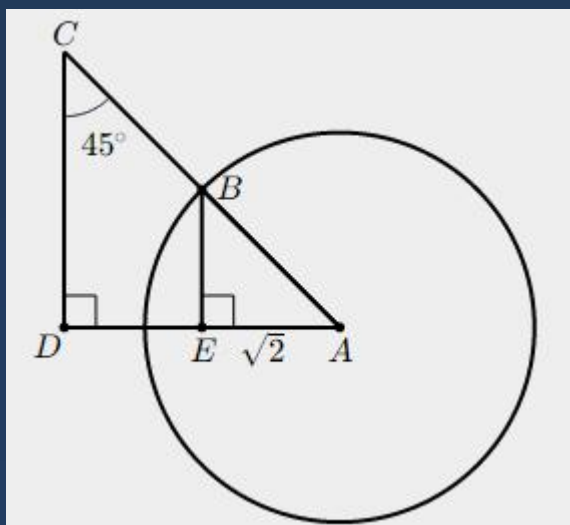
1.The length of AE is 2√2 in the figure shown at left. What is the length of BE?

A. 1

B. $\sqrt{2}$

C. $\frac{\sqrt{2}}{2}$

D. $\frac{1}{2}$

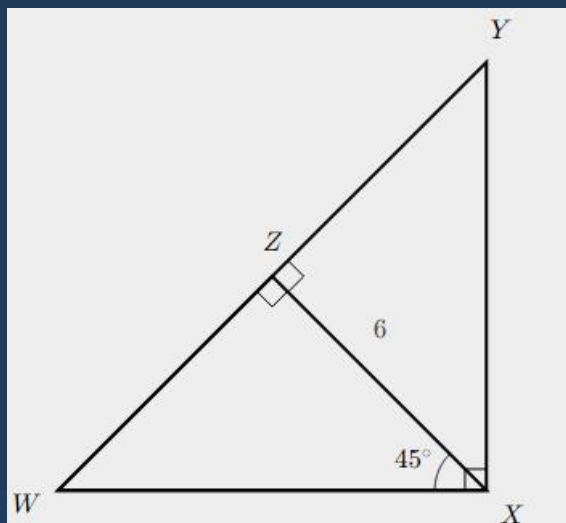2.Wht is the length of *XY* in the figure shown at left?

A. 6
B. $4\sqrt{3}$
C. $6\sqrt{2}$
D. 12

3.In the figure above, FH has length 12, JK has length 7, and the measure of
angle ∠FGH is θ radians. It is given that $\frac{5}{7}$≈tan(0.62)≈cot(0.95)≈sin(0.80)≈cos(0.78).
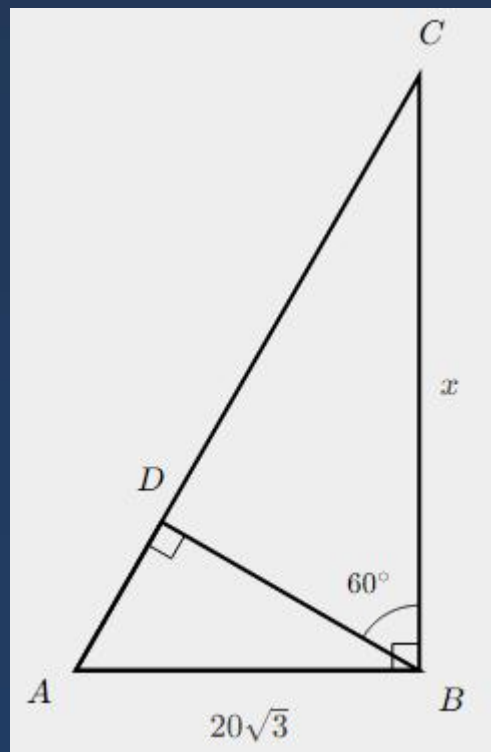Approximately what is the value of θ in radians to the nearest hundredth?
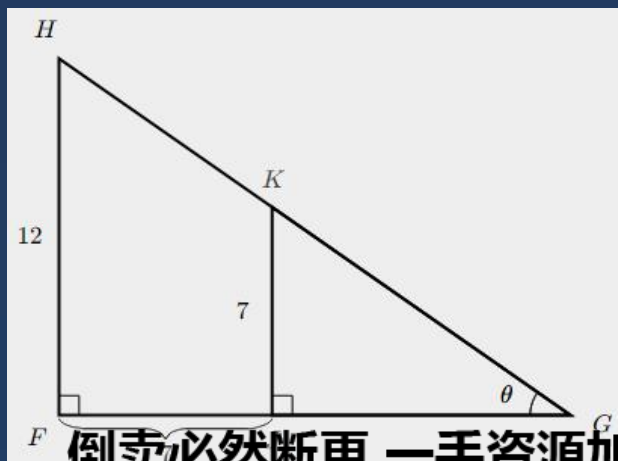
4.In the figure at left, line segment AB is vertical and BC is horizontal. Line segment BT has length 9 and is perpendicular to AC. The length of BC is 15. Approximately what is the value of h, to the nearest integer?
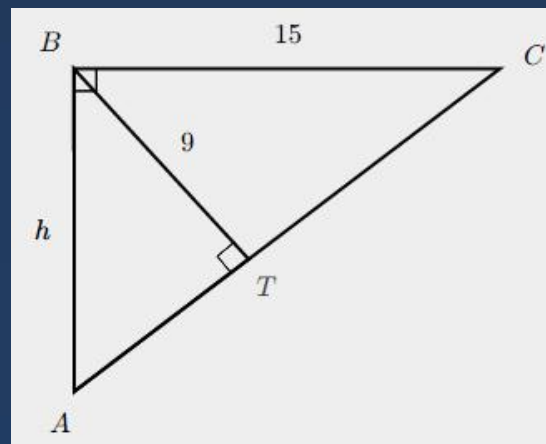
5.What is the value of xx in the figure shown at left?

6.What is the value of x in the figure shown to the left?

A. $3\sqrt{3}$
B.   12
C.   18
D. $12\sqrt{3}$
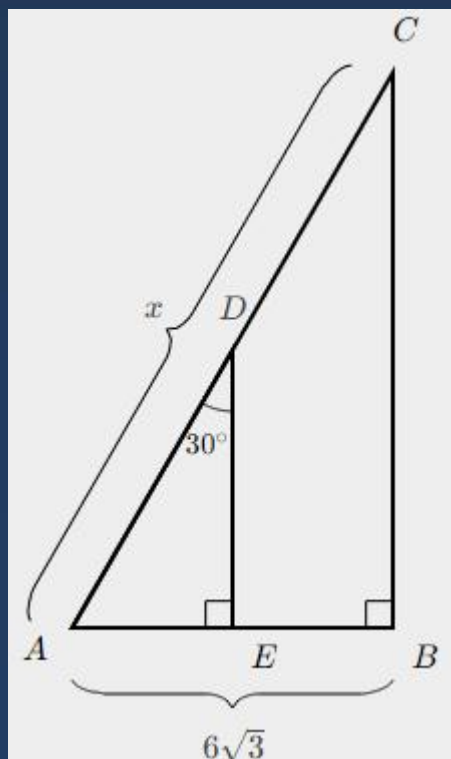
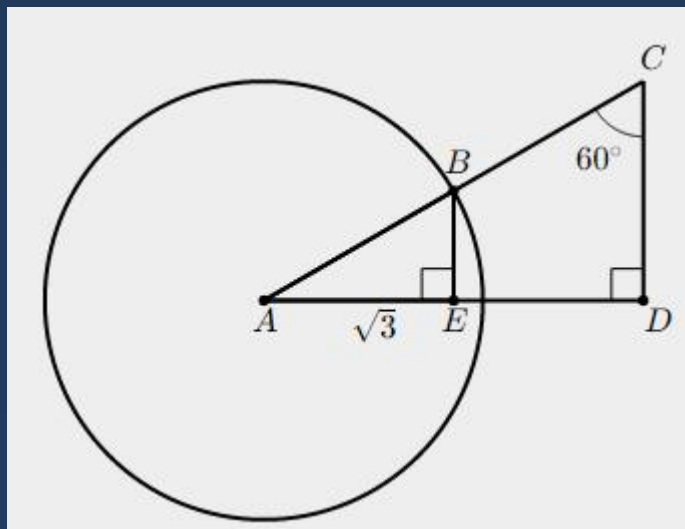7.Given that $\frac{12}{13} \approx \tan(42.7°) \approx \sin(67.4°) \approx \cos(22.6°)$, approximately what is the value of α, to the nearest integer?
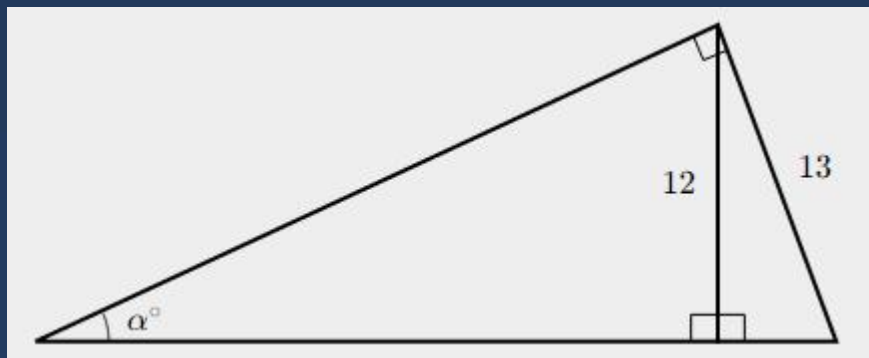
8.The length of AE is 3√3 in the figure shown at left. What is the length of AB?

9.The length of AB is 20 in the figure shown at left. What is the length of AE?
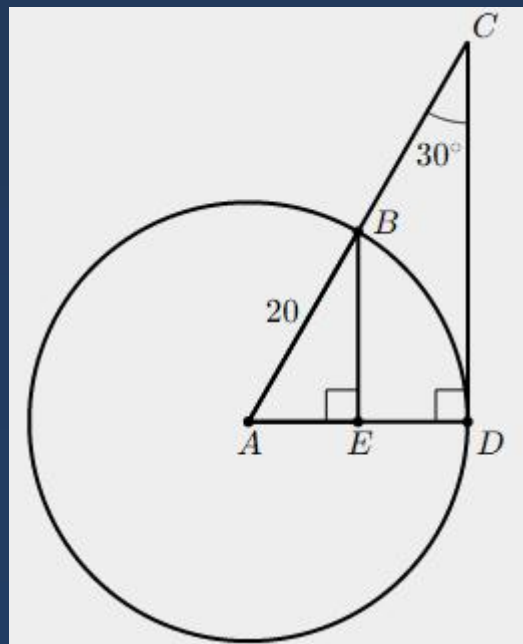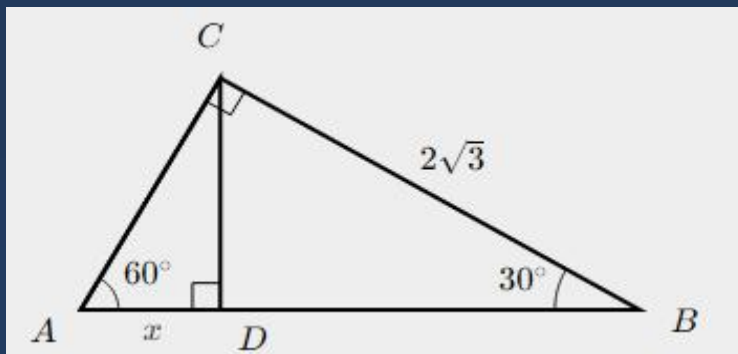
10.What is the value of x in the figure shown at left?
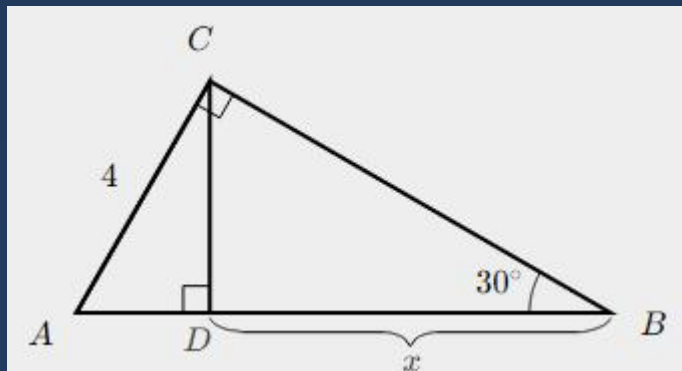
11.What is the value of x in the figure shown at left?

12.What is the value of x in the figure shown above?
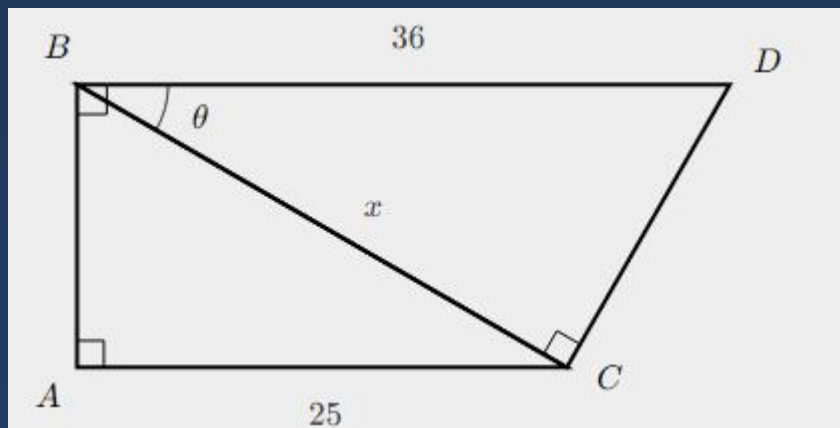
13.What is the measure in degrees of ∠MLN in the figure shown at left?

Thanks

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