Bellwork Alg 2B Tuesday, February 6, 2018

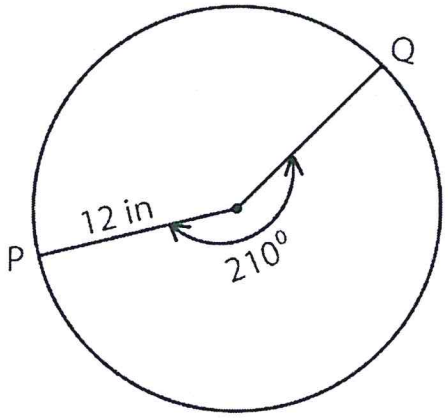
Convert each angle into the other unit of measure. Round degrees to the nearest tenth and leave radians reduced form and in terms of π.

1. $6300°$

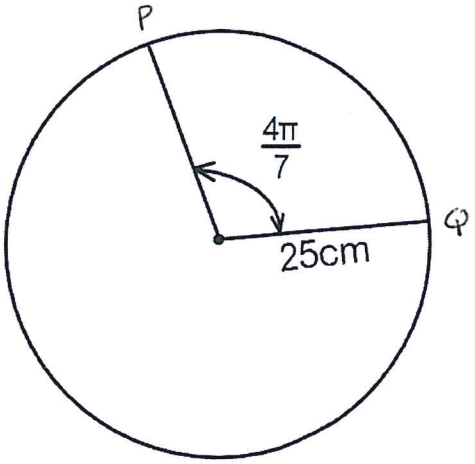
2. $\frac{13\pi}{36}$

Find the length of arc PQ in each circle to the nearest hundredth.

3.



4.



5. A certain product costs a company \$65 to make. The product is sold by a salesperson who earns a comission that is equal to 20% of the sales price of the product. The profit the company makes for each unit is equal to the sales price minus the combined costs of making the product and the comission. If the sales price of the product is \$100, which of the following equations gives the number of units, u, of the product the company sold to make a profit of \$6840?

A. $(100(1-0.2)-65)u = 6840$

B. $(100-65)(1-0.8)u = 6480$

C. $0.8(100)-65u = 6480$

D. $(0.2(100)+65)u = 6480$

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Answers

Convert each angle into the other unit of measure. Round degrees to the nearest tenth and leave radians reduced form and in terms of π.

1. $6300° \cdot \frac{\pi}{180°}$

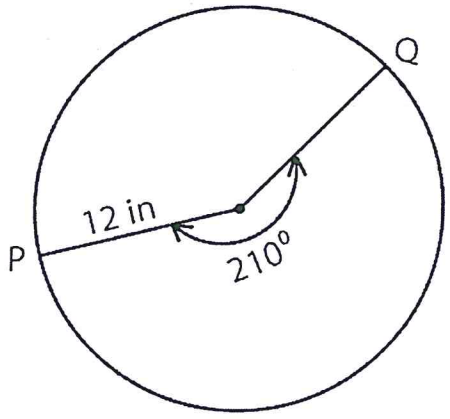
35π

2. $\frac{13\pi}{36} \cdot \frac{180°}{\pi}$

$65°$

Find the length of arc PQ in each circle to the nearest hundredth.

3.



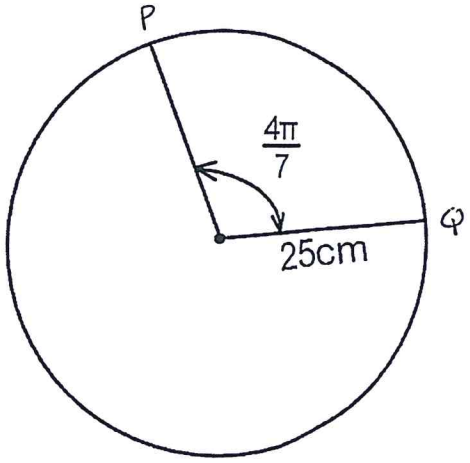
$S = \theta \cdot r$

$210° \cdot \frac{\pi}{180°} = \frac{7\pi}{6}$

$S = \frac{7\pi}{6} \cdot 12\text{ in}$

$S = 43.98\text{ in}$

4.



$S = \frac{4\pi}{7} \cdot 25\text{ cm}$

$S = 44.88\text{ cm}$

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profit = Income - Costs

Income: \$100 each

Costs: \$65 each, 20% commission each

Profit = $100u - 65u - .20(100)u = 15u$

THE ONLY ANSWER TO SIMPLIFIES TO $15u$ IS A.