Questions: Introduction to radians

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Summary

Questions relating to the introduction to radians study guide.

Before attempting these questions, it is highly recommended that you read Guide: Introduction to radians.

Q1

Convert the following angle measures in degrees into radians, giving your answer as both a fraction of π and a real number to three decimal places.

1.1. 30°

1.2. 105°

1.3. 298°

1.4. 61°

1.5. 353°

1.6. 197°

Q2

Convert the following angle measures in radians into degrees. If your answer is a decimal, you should give your answer to three decimal places.

2.1. $\frac{\pi}{3}$

2.2. $\frac{2\pi}{3}$

2.3. $\frac{\pi}{7}$

2.4. $\frac{5\pi}{7}$

2.5. 5

2.6. $\frac{3}{4}$

Q3

Find the length of arc and the area of the sector of the following specified objects, giving your answer as either a fraction of π or expressing your answer to three decimal places.

3.1. circle with radius 7 over an angle of $\frac{\pi}{8}$

3.2. circle with radius $\frac{1}{3}$ over an angle of $\frac{3\pi}{2}$

3.3. circle with radius 30 over an angle of $\frac{7\pi}{15}$

After attempting the questions above, please click this link to find the answers.

Version history and licensing

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- v1.1: edited 05/24 by tdhc.