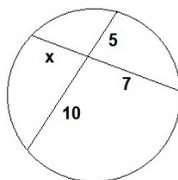


Show all work.

- 1) (3 pts) Compute all solutions to the equation

$$\sin x = \frac{1}{2}.$$

- 2) (1 pt) Which of the values you obtained in Question 1 is the principle value?
- 3) (3 pts) Write the complex number $-\sqrt{3} - i$ in polar form.
- 4) (3 pts) The lines in the figure below are chords of the circle.
- Determine the value of x .
 - What is the name of the theorem you used to determine x ?
 - What fundamental concept in geometry do you suspect would be used in proving the theorem from part b)? Try to answer without looking this up.



- 5) (2 pts) If there are 23 snoggs in a blimd and 8 blimds in a whozee, how many whozees are there in 15.6 snoggs?
- 6) (1 pt) Faculty at the college are paid every other Wednesday. In 2012, something unusual happened. Faculty received 3 paychecks in February.
- Why is this unusual?
 - List all events that needed to align for this to happen.
- 7) (1 pt) This is a 'how much older than the students is the professor' question.
- There is a famous urban legend surrounding the song 'Love Rollercoaster' by the Ohio Players. What is this legend?
 - Did you already know the answer to this question or did you have to look it up?
- 8) (1 pt) Where is one of the few places you are likely to see a dot matrix printer these days?
- 9) (1 pt) Go to Brockport's website. Open the search box and search for anything you want that will return many results (say, registration). Go to the bottom of the search results page and click on the Next arrow. Then click on any of the page numbers. What happens when you do this? Hover your mouse over the page numbers or the Next arrow. If you look at the bottom of your browser, you should see something that looks like a computer command. Based on the behaviors you observed above, what do you think this command means?