

Trigonometry

	Day	Date	Video	Assignment	Is it done?
34	Tuesday	5/5/2020		practice test, chapter 8	
35	Wednesday	5/6/2020		practice test #2, chapter 8	
36	Thursday	5/7/2020		take test - chapter 8 [I will email it that day]	
37	Friday	5/8/2020		"field trip day" - try to do something fun	
39	Tuesday	5/12/2020	PF	practice final - ch 2 and 3 (1st half - 35 properties plus 1-46)	
40	Wednesday	5/13/2020	PF	practice final - ch 2 and 3 (2nd half - 47 to 92)	
41	Thursday	5/14/2020		take final - ch 2 and 3 (1st half - 1 to 81, NO NOTES ALLOWED) [I will email it that day]	
42	Friday	5/15/2020		take final - ch 2 and 3 (2nd half - 82 to 127, CAN USE PROPERTIES LIST THAT I GIVE YOU) [I will email it that day]	
	Tuesday	5/19/2020	9.2		
	How many total did you do:				

Zoom session happen Tues/Thurs at 12:00 for those needing any help

We usually do these during a school day in May.
Please return this form at the 5-18 dropoff/pickup day.
It helps TMR to work up a class schedule for next year.
Thank you.

Name _____	Grade Next Year _____	2020-21 Pre-Schedule Form	
I expect to be at CCA _____	Elsewhere _____	Don't Know _____	
Math			
General Math _____	Algebra I _____	Trigonometry _____	
Pre-Algebra _____	Geometry _____	Calculus _____	
French:			
Yes _____	No _____	Level _____	
Spanish:			
Yes _____	No _____	Level _____	
English _____			
Lunch Help _____			
9th-12th:			
Accelerated _____	Regular _____		
11th/12th:			
Physics _____	Environmental _____		
Electives (Rank your choices starting with 1 for your first choice, ranking anything you think you might take)			
Art _____	Computers _____	Girls Only _____	Speech _____
Boys Only _____	Cook \$ _____	Health _____	Video Classics _____
Child Dev _____	Debate _____	Keyboarding _____	Worship Team _____
College + Career _____	Drama _____	Money Mgmt _____	

Name _____

A pair of dice is rolled, one black and one white. Find the probability of

1. The total is 8. _____
2. The total is at least 9. _____
3. The total is less than 5. _____
4. The numbers are 4 and 6. _____
5. The white is 4 or the black is 1. _____
6. The white is 3 and the black is 4. _____
7. The total is between 4 and 6, inclusive. _____

A card is drawn at random from a deck of 52.

8. What name is given to the act of drawing a card? _____
9. How many outcomes are in the sample space? _____
10. What is the probability that the card is a king? _____
11. What is the probability that the card is black? _____
12. What is the probability that the card is an odd number card? _____
13. What is the probability that the card is a red two? _____
14. What is the probability that the card is a joker? _____

If I have 3 trig students and 5 calculus students

15. How many ways could I select a trig or a calculus student? _____
16. How many ways could I select a trig and a calculus student? _____

Using the letters of the word Ritenbaugh,

17. How many ways could you pick a vowel and a consonant? _____
18. How many ways could you pick a vowel or a consonant? _____

19. There are 11 people in trig and 9 in compsci. If there are 6 people in both, how many different people have trig or compsci? _____

Select a permutation at random from the word Grabowski

20. What is the probability it begins with a consonant? _____
21. What is the probability that the second letter is g and the third is w? _____
22. What is the probability that the last two letters are consonants? _____

23. Still using Grabowski, what is the probability that it starts with a, has a consonant last, and a vowel in the third space?

24. Still using Grabowski, how many five letter words could you make?

25. How many ways can you select a team of 7 from a group of 12?

26. How many ways could you order 8 questions on a test?

27. If there are 31 flavors of ice cream at Baskin Robbins, how many different bowls of ice cream could you get using three different flavors?

28. How many ways could you be dealt a five card poker hand?

29. Using the alphabet, how many 7 letter words could you make?

30. How many 13 card bridge hands could you make?

31. What is the probability of selecting a committee of 6 (4 boys, 2 girls) from a group of 15 (9 boys, 6 girls)?

32. What is the probability of being dealt 13 cards and having 8 of them be spades?

33. What is the probability of being dealt 13 cards and getting 4 diamonds, 4 spades, and 3 hearts?

The probability of Emily missing a trig question is .01. The probability of her missing a geometry question is .005.

34. What is the probability she gets a trig question right?

35. That she gets a geometry question right?

36. That she gets both right?

37. That she gets both wrong?

38. That she gets at least one right?

39. What is her chance of getting a perfect on a 100 question trig test?

40. If she wanted to have a 99% chance of getting a perfect, what would her probability of getting a question right be?

The probability that Ian makes a foul shot is .9. In a game he shoots 5 foul shots. Find the probability he makes

41. none

42. one

43. two

44. three

45. four

46. five

47. How do you know your answers are reasonable?

48. At the prom, a mischievous student named Scott replaces 3 of 200 pieces of cheese with pieces of butter. Knowing this, a smart trig student named Nate makes a bet with a dumb calculus student named Shane. Shane pays Nate \$1 to play this little game. If he can pick a piece of butter, he gets \$5. What is Nate's expectation?

49. At a softball game, the probability that Marcy makes an out is .25, the probability of a single is .4, the probability of a double is .2, the probability of a triple is .05, and the probability of a home run is .1. What is her expectation is her payoff is 0 for an out, 1 for a single, 2 for a double, etc.?

50. The probability of a seed sprouting is .9. If you plant ten seeds, what is the mathematically expected number of seeds that will sprout?

51. You pay a dollar to play a game. You win \$8 if a face card is chosen, and get nothing otherwise. What is your mathematical expectation?

52. If Kara's probability of an A in trig is .8, in physics is .95, and in British literature is .85, what is her expectation if her father pays her \$30 for all A's?

53. What is her expectation if she is paid \$10 for each A?

54. Calvin Butterball has a gambling addiction. He makes bets with people about phone numbers. He picks a page out of the phone book at random and looks at the first number on the page. If all ~~the~~ ^{seven} digits of the phone number are different, Calvin gets \$2, but if they are not, he loses 5¢. What is Calvin's expectation?

55. It costs you \$10 to play a hand of poker (5 cards). If you are dealt all four aces, you win \$10,000. What is your expectation?

Name _____

~~Trig Test 3.3-5~~

1-6. Name six reciprocal properties.

THIS IS PART
OF THE
FINAL -- CH
2 AND 3

7-10. Name four quotient properties.

11-13. Name three Pythagorean properties.

14-19. Name six cofunction properties.

20-25. Name six composite argument properties.

26-30. Name five double angle identities.

31-35. Name five half angle properties.

1. What is the name for how long it takes a graph to repeat itself?
2. What is the distance from the axis to a high or low point?
3. What is the name for how high or low a graph is shifted up or down?
4. What is the name for how far left or right a graph is shifted?
5. What is the name for the number of cycles per degree?
- 6-9. In an equation $y = A + B \cos C (\theta - D)$, what do the letters A, B, C, and D tell us?

- 10-11. What else can you figure out and how?
12. With what unit are angles measured?
13. With what unit are arc lengths measured?
14. What is the relationship between the two?
15. How do you convert from the first to the second?
16. How do you convert from the second to the first?
17. What range of values do you get from inverse sine?
18. What range of values do you get from inverse cosine?
19. For what range of values are inverse sine and inverse cosine defined (what can you put in)?
20. If the calculator value of $\sin^{-1} x = \theta$, what is the general solution?
21. If the calculator value of $\cos^{-1} x = \theta$, what is the general solution?
22. If the calculator value of $\tan^{-1} x = \theta$, what is the general solution?

Graph

23. $y = \sin x$

24. $y = \cos x$

25. $y = \tan x$

26. $y = \cot x$

27. $y = \csc x$

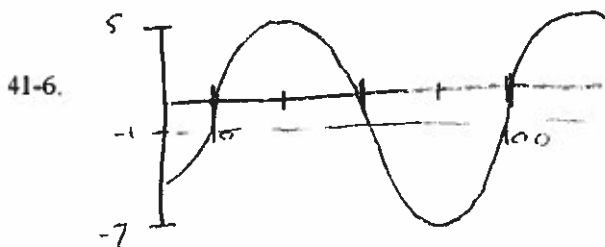
28. $y = \sec x$

Identify the key words and graph the function.

29-34. $y = 2 + 3 \sin 4 (\theta - 20)$

35-40. $y = -2 + 5 \cos (\pi/5) (x + 3)$

Identify the key words and write an equation for the graph.



Find the exact number of radians.

47. 60

48. 420

Find the decimal approximation for the number of radians.

49. 59

Find the exact number of degrees.

50. $\pi/2$

51. $5\pi/3$

Find the approximate number of degrees in an angle of radian measure

52. .63

Evaluate.

53. $\sin \pi/3$

54. $\sec 5\pi/6$

55. $\tan 9\pi/2 \cdot \cot 9\pi/2$

56. $\cos^2 3\pi/2 + \sin^2 3\pi/2$

57. $\sin \pi/6 + \cos \pi/6$

Do on your calculator in radian mode.

58. $\csc 3.1$

59. $\sec^{-1} 7.4$

60. $\cot^{-1} 4.2$

61. $\sec 1.9$

Find the general solution and the first 3 positive values. θ is for degrees and x is for radians.

62-3. $\theta = \sin^{-1} .33$

64-5. $x = \cos^{-1} .17$

Find the exact principal value

66. $\theta = \cos^{-1} -\frac{\sqrt{3}}{2}$

67. $\theta = \sin^{-1} \frac{\sqrt{3}}{2}$

68. $x = \sin^{-1} 1$

69. $x = \cos^{-1} 1/2$

70-2. If $f(x) = 7 + 2 \sin \pi/8 (x - 4)$, find $f(3.9)$ and find the first three positive values where $f(x) = 8.6$.

In Quadrant I, $\sin A = \frac{4}{5}$. In Quadrant IV, $\cos B = 3/8$. Find

73. $\sin (A-B)$

74. $\cos (A+B)$

75. $\sin 2A$

76. $\cos 2A$

77. $\cos \frac{1}{2}A$

Solve the equation.

78. $\frac{\tan \theta + \tan 20}{1 - \tan \theta \tan 20} = \sqrt{3}$

79. $\cos \theta \cos 35 + \sin \theta \sin 35 = \frac{1}{2}$

80. $\sqrt{\frac{1}{2}(1 - \cos x)} = 0$

81. $\sin \theta \cos 20 - \cos \theta \sin 20 = 1$

82. $1 - 2 \sin^2 x = \frac{\sqrt{2}}{2}$

$$83. \quad \frac{2 \tan O}{1 - \tan^2 O} = \frac{\sqrt{3}}{3}$$

Prove that the given equation is an identity.

$$84-6. \quad \frac{1}{1 + \cos x} = \csc^2 x - \csc x \cot x$$

$$87-9. \quad \sin(x+30) + \cos(x+60) = \cos x$$

$$90-2. \quad \sin 2x = \frac{2 \tan x}{1 + \tan^2 x}$$