

Trig Graph Poster “Exam”

You may work alone or with a partner
(if you choose to make a group of 3, you will need to do extra----see below)

Due: Tuesday, October 16, 2018 at the beginning of class. I will be choosing groups randomly to present their posters and give a short discussion of their findings. We will use time Tuesday to do presentations.

Materials: Posters need be done on a full poster board or tri-fold board(I will not be providing it!!!!). I will have other materials available on Wednesday, Friday and Monday(ie. markers, crayons, glue sticks, etc)

What to do:

You will need to find 2 real-world use of sine or cosine curves(sinusoidal functions). You will need to provide the context of your example(when did you get it, what should it be used for, graph of the example, relevant parts of the function, etc).(If you are in a group of 3 you will need to do 3 examples)

All trig waves need to be hand drawn or graphed using a website. You can use my blank graphs or print more appropriate graphs from the internet. If you need different scaled blank graphs, you will need to email me a link or attachment by Friday morning.

You must include pictures(you can take your own photograph or use a photo from the internet), data sets(if applicable), and graphs for your project to be complete.

Words of Wisdom.....

Choose your partner or group wisely!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!

Neatness and creativity are expected

This will be entered as a quiz grade

Using the class time given is expected

You will(most likely) need to do some work outside of class

The grading rubric is on the back, consult it before you turn in your project

Use the real world examples we discussed as a basis for your searches

I can help you if you want to find data sets that have a sine or cosine wave shape

Total Possible points = 30 pts

Required Elements	8 all required elements included	6 One or two required elements not included	4 Three required elements not included	2 More than 3 elements not included
Pictures	4 Both Real Life sinusoidal waves included	3 1 Real life sinusoidal wave included	2 Picture included but not a real world example	1 No pictures
Graph Accuracy	8 All graphs correctly sketched	7 One error	6 Two or three errors	5 or less depending on the number of errors
Neatness	3 No scribbles or noticeable flaws	2 One noticeable flaw	1 Two or three noticeable flaws	0 More than 3 flaws
Labels	3 Equations & axes labeled	2 Equation OR axes not labeled clearly	1 Equations & axes labeled at all	0 No equations or labels shown
Time/Using class time	4 Project on time and used all of class time	3 Project late or failed to use all of the class time	2 or 1 Project more than 2 school days late or used little class time	0 Project more than 3 school days late and used no class time

Total Possible points = _____/30

What should you include in the construction of your poster?

Where your data comes from? Source and link to data

What is your data about? $x = \text{?????}$ $y = \text{?????}$

YOUR POSTER MUST HAVE A TABLE WITH DATA CLEARLY DEFINED (include UNITS)

Why did you pick this type of data to make a sinusoidal model? (mathematically and personally)

How did you build your model?

Did you determine the sinusoidal model or did you let someone else do the work?

If you did the work, then explain how you determine a , b , d , and phase shift? **BY THE WAY THIS IMPRESSES THE JUDGE MORE!**

How might someone use your model to determine future behavior? **DID YOU LOOK AT THE RUBRIC FOR YOUR GRADING?**

Have you done what it takes to maximize your grade based on the rubric?

Have you made your poster visually interesting and informative to the viewer?

What should you address in your SHORT presentation?

1. Same thing as your poster does

What can your presentation be?

1. Creative
2. Informative
3. Interesting
4. Short! (we are aiming at 3 to 5 min max)

How can you maximize your points?

1. Be confident and strong in voice
2. Don't have one person do all of the talking
3. Use proper and valid mathematical terminology

Please be considerate while others are speaking

1. Stay calm
(I know public speaking is an issue for some of you)
2. Relax (most groups will maximize their points easily by doing a good job on a poster and being able to relate to the information in their presentation)
3. Have fun with it, it is better than taking a quiz and you will get the rest of the week off after completing the presentation.
4. Those that are absent will have to come in outside of class time and make a video of their presentation to earn the points from the presentation

X	Y
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X	Y
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X	Y
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X	Y
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31	

	X	Y
Jan 1	1	
Jan 15	15	
Jan 31	31	
Feb 1	32	
Feb 14	45	
Feb 28	59	
Mar 1	60	
Mar 15	74	
Mar 31	90	
Apr 1	91	
Apr 30	120	
May 1	121	
May 15	135	
May 31	151	
Jun 1	152	
Jun 15	166	
Jun 30	181	
July 1	182	
July 15	196	
July 31	212	
Aug 1	213	
Aug 15	227	
Aug 31	243	
Sept 1	244	
Sept 16	259	
Sept 30	273	
Oct 1	274	
Oct 15	288	
Oct 31	304	
Nov 1	305	
Nov 15	319	
Nov 30	334	
Dec 1	335	
Dec 15	349	
Dec 31	365	

	X	Y
Jan 1	1	
Jan 15	15	
Jan 31	31	
Feb 1	32	
Feb 14	45	
Feb 28	59	
Mar 1	60	
Mar 15	74	
Mar 31	90	
Apr 1	91	
Apr 30	120	
May 1	121	
May 15	135	
May 31	151	
Jun 1	152	
Jun 15	166	
Jun 30	181	
July 1	182	
July 15	196	
July 31	212	
Aug 1	213	
Aug 15	227	
Aug 31	243	
Sept 1	244	
Sept 16	259	
Sept 30	273	
Oct 1	274	
Oct 15	288	
Oct 31	304	
Nov 1	305	
Nov 15	319	
Nov 30	334	
Dec 1	335	
Dec 15	349	
Dec 31	365	

	X	Y
Jan 1	1	
Jan 15	15	
Jan 31	31	
Feb 1	32	
Feb 14	45	
Feb 28	59	
Mar 1	60	
Mar 15	74	
Mar 31	90	
Apr 1	91	
Apr 30	120	
May 1	121	
May 15	135	
May 31	151	
Jun 1	152	
Jun 15	166	
Jun 30	181	
July 1	182	
July 15	196	
July 31	212	
Aug 1	213	
Aug 15	227	
Aug 31	243	
Sept 1	244	
Sept 16	259	
Sept 30	273	
Oct 1	274	
Oct 15	288	
Oct 31	304	
Nov 1	305	
Nov 15	319	
Nov 30	334	
Dec 1	335	
Dec 15	349	
Dec 31	365	

X	Y	X	Y
1		27	
2		28	
3		29	
4		30	
5		31	
6		32	
7		33	
8		34	
9		35	
10		36	
11		37	
12		38	
13		39	
14		40	
15		41	
16		42	
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19		45	
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23		49	
24		50	
25		51	
26		52	

X	Y	X	Y
1		27	
2		28	
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5		31	
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9		35	
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18		44	
19		45	
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23		49	
24		50	
25		51	
26		52	

x	y	x	y	x	y	x	y	x	y	x	y	x	y
1		31		61		91		121		151		181	
2		32		62		92		122		152		182	
3		33		63		93		123		153		183	
4		34		64		94		124		154		184	
5		35		65		95		125		155		185	
6		36		66		96		126		156		186	
7		37		67		97		127		157		187	
8		38		68		98		128		158		188	
9		39		69		99		129		159		189	
10		40		70		100		130		160		190	
11		41		71		101		131		161		191	
12		42		72		102		132		162		192	
13		43		73		103		133		163		193	
14		44		74		104		134		164		194	
15		45		75		105		135		165		195	
16		46		76		106		136		166		196	
17		47		77		107		137		167		197	
18		48		78		108		138		168		198	
19		49		79		109		139		169		199	
20		50		80		110		140		170		200	
21		51		81		111		141		171		201	
22		52		82		112		142		172		202	
23		53		83		113		143		173		203	
24		54		84		114		144		174		204	
25		55		85		115		145		175		205	
26		56		86		116		146		176		206	
27		57		87		117		147		177		207	
28		58		88		118		148		178		208	
29		59		89		119		149		179		209	
30		60		90		120		150		180		210	

x	y	x	y	x	y	x	y	x	y	x	y
211		241		271		301		331		361	
212		242		272		302		332		362	
213		243		273		303		333		363	
214		244		274		304		334		364	
215		245		275		305		335		365	
216		246		276		306		336			
217		247		277		307		337			
218		248		278		308		338			
219		249		279		309		339			
220		250		280		310		340			
221		251		281		311		341			
222		252		282		312		342			
223		253		283		313		343			
224		254		284		314		344			
225		255		285		315		345			
226		256		286		316		346			
227		257		287		317		347			
228		258		288		318		348			
229		259		289		319		349			
230		260		290		320		350			
231		261		291		321		351			
232		262		292		322		352			
233		263		293		323		353			
234		264		294		324		354			
235		265		295		325		355			
236		266		296		326		356			
237		267		297		327		357			
238		268		298		328		358			
239		269		299		329		359			
240		270		300		330		360			

	x	y
midnight	0	
1:00AM	1	
2:00AM	2	
3:00AM	3	
4:00AM	4	
5:00AM	5	
6:00AM	6	
7:00AM	7	
8:00AM	8	
9:00AM	9	
10:00AM	10	
11:00AM	11	
noon	12	
1:00 PM	13	
2:00 PM	14	
3:00 PM	15	
4:00 PM	16	
5:00 PM	17	
6:00 PM	18	
7:00 PM	19	
8:00 PM	20	
9:00 PM	21	
10:00 PM	22	
11:00 PM	23	
12:00 AM (next day)	24	

	x	y
midnight	0	
1:00AM	1	
2:00AM	2	
3:00AM	3	
4:00AM	4	
5:00AM	5	
6:00AM	6	
7:00AM	7	
8:00AM	8	
9:00AM	9	
10:00AM	10	
11:00AM	11	
noon	12	
1:00 PM	13	
2:00 PM	14	
3:00 PM	15	
4:00 PM	16	
5:00 PM	17	
6:00 PM	18	
7:00 PM	19	
8:00 PM	20	
9:00 PM	21	
10:00 PM	22	
11:00 PM	23	
12:00 AM (next day)	24	

	x	y		x	y
12:00AM midnight	0		12:00PM noon	12	
12:30AM	0.5		12:30PM	12.5	
1:00AM	1		1:00PM	13	
1:30AM	1.5		1:30PM	13.5	
2:00AM	2		2:00PM	14	
2:30AM	2.5		2:30PM	14.5	
3:00AM	3		3:00PM	15	
3:30AM	3.5		3:30PM	15.5	
4:00AM	4		4:00PM	16	
4:30AM	4.5		4:30PM	16.5	
5:00AM	5		5:00PM	17	
5:30AM	5.5		5:30PM	17.5	
6:00AM	6		6:00PM	18	
6:30AM	6.5		6:30PM	18.5	
7:00AM	7		7:00PM	19	
7:30AM	7.5		7:30PM	19.5	
8:00AM	8		8:00PM	20	
8:30AM	8.5		8:30PM	20.5	
9:00AM	9		9:00PM	21	
9:30AM	9.5		9:30PM	21.5	
10:00AM	10		10:00PM	22	
10:30AM	10.5		10:30PM	22.5	
11:00AM	11		11:00PM	23	
11:30AM	11.5		11:30PM	23.5	
			12:00AM (Next day)	24	

	x	y		x	y
12:00AM Midnight	0		12:00PM Noon	12	
12:15AM	0.25		12:15PM	12.25	
12:30AM	0.5		12:30PM	12.5	
12:45AM	0.75		12:45PM	12.75	
1:00AM	1		1:00PM	13.	
1:15AM	1.25		1:15PM	13.25	
1:30AM	1.5		1:30PM	13.5	
1:45AM	1.75		1:45PM	13.75	
2:00AM	2		2:00PM	14.	
2:15AM	2.25		2:15PM	14.25	
2:30AM	2.5		2:30PM	14.5	
2:45AM	2.75		2:45PM	14.75	
3:00AM	3		3:00PM	15.	
3:15AM	3.25		3:15PM	15.25	
3:30AM	3.5		3:30PM	15.5	
3:45AM	3.75		3:45PM	15.75	
4:00AM	4		4:00PM	16.	
4:15AM	4.25		4:15PM	16.25	
4:30AM	4.5		4:30PM	16.5	
4:45AM	4.75		4:45PM	16.75	
5:00AM	5		5:00PM	17.	
5:15AM	5.25		5:15PM	17.25	
5:30AM	5.5		5:30PM	17.5	
5:45AM	5.75		5:45PM	17.75	
6:00AM	6		6:00PM	18.	
6:15AM	6.25		6:15PM	18.25	
6:30AM	6.5		6:30PM	18.5	
6:45AM	6.75		6:45PM	18.75	
7:00AM	7		7:00PM	19.	
7:15AM	7.25		7:15PM	19.25	
7:30AM	7.5		7:30PM	19.5	
7:45AM	7.75		7:45PM	19.75	
8:00AM	8		8:00PM	20.	
8:15AM	8.25		8:15PM	20.25	
8:30AM	8.5		8:30PM	20.5	
8:45AM	8.75		8:45PM	20.75	
9:00AM	9		9:00PM	21.	
9:15AM	9.25		9:15PM	21.25	
9:30AM	9.5		9:30PM	21.5	
9:45AM	9.75		9:45PM	21.75	
10:00AM	10		10:00PM	22.	
10:15AM	10.25		10:15PM	22.25	
10:30AM	10.5		10:30PM	22.5	
10:45AM	10.75		10:45PM	22.75	
11:00AM	11		11:00PM	23.	
11:15AM	11.25		11:15PM	23.25	
11:30AM	11.5		11:30PM	23.5	
11:45AM	11.75		11:45PM	23.75	

	x	y		x	y		x	y		x	y
12:00AM Midnight	0		6:00AM	6		12:00PM Noon	12		6:00PM	18.	
12:15AM	0.25		6:15AM	6.25		12:15PM	12.25		6:15PM	18.25	
12:30AM	0.5		6:30AM	6.5		12:30PM	12.5		6:30PM	18.5	
12:45AM	0.75		6:45AM	6.75		12:45PM	12.75		6:45PM	18.75	
1:00AM	1		7:00AM	7		1:00PM	13.		7:00PM	19.	
1:15AM	1.25		7:15AM	7.25		1:15PM	13.25		7:15PM	19.25	
1:30AM	1.5		7:30AM	7.5		1:30PM	13.5		7:30PM	19.5	
1:45AM	1.75		7:45AM	7.75		1:45PM	13.75		7:45PM	19.75	
2:00AM	2		8:00AM	8		2:00PM	14.		8:00PM	20.	
2:15AM	2.25		8:15AM	8.25		2:15PM	14.25		8:15PM	20.25	
2:30AM	2.5		8:30AM	8.5		2:30PM	14.5		8:30PM	20.5	
2:45AM	2.75		8:45AM	8.75		2:45PM	14.75		8:45PM	20.75	
3:00AM	3		9:00AM	9		3:00PM	15.		9:00PM	21.	
3:15AM	3.25		9:15AM	9.25		3:15PM	15.25		9:15PM	21.25	
3:30AM	3.5		9:30AM	9.5		3:30PM	15.5		9:30PM	21.5	
3:45AM	3.75		9:45AM	9.75		3:45PM	15.75		9:45PM	21.75	
4:00AM	4		10:00AM	10		4:00PM	16.		10:00PM	22.	
4:15AM	4.25		10:15AM	10.25		4:15PM	16.25		10:15PM	22.25	
4:30AM	4.5		10:30AM	10.5		4:30PM	16.5		10:30PM	22.5	
4:45AM	4.75		10:45AM	10.75		4:45PM	16.75		10:45PM	22.75	
5:00AM	5		11:00AM	11		5:00PM	17.		11:00PM	23.	
5:15AM	5.25		11:15AM	11.25		5:15PM	17.25		11:15PM	23.25	
5:30AM	5.5		11:30AM	11.5		5:30PM	17.5		11:30PM	23.5	
5:45AM	5.75		11:45AM	11.75		5:45PM	17.75		11:45PM	23.75	

	x	y		x	y
12:00AM midnight	0		12:00PM noon	12	
12:30AM	0.5		12:30PM	12.5	
1:00AM	1		1:00PM	13	
1:30AM	1.5		1:30PM	13.5	
2:00AM	2		2:00PM	14	
2:30AM	2.5		2:30PM	14.5	
3:00AM	3		3:00PM	15	
3:30AM	3.5		3:30PM	15.5	
4:00AM	4		4:00PM	16	
4:30AM	4.5		4:30PM	16.5	
5:00AM	5		5:00PM	17	
5:30AM	5.5		5:30PM	17.5	
6:00AM	6		6:00PM	18	
6:30AM	6.5		6:30PM	18.5	
7:00AM	7		7:00PM	19	
7:30AM	7.5		7:30PM	19.5	
8:00AM	8		8:00PM	20	
8:30AM	8.5		8:30PM	20.5	
9:00AM	9		9:00PM	21	
9:30AM	9.5		9:30PM	21.5	
10:00AM	10		10:00PM	22	
10:30AM	10.5		10:30PM	22.5	
11:00AM	11		11:00PM	23	
11:30AM	11.5		11:30PM	23.5	
			12:00AM (Next day)	24	

x	y	x	y
0		30	
1		31	
2		32	
3		33	
4		34	
5		35	
6		36	
7		37	
8		38	
9		39	
10		40	
11		41	
12		42	
13		43	
14		44	
15		45	
16		46	
17		47	
18		48	
19		49	
20		50	
21		51	
22		52	
23		53	
24		54	
25		55	
26		56	
27		57	
28		58	
29		59	
		60	

x	y	x	y
0		30	
1		31	
2		32	
3		33	
4		34	
5		35	
6		36	
7		37	
8		38	
9		39	
10		40	
11		41	
12		42	
13		43	
14		44	
15		45	
16		46	
17		47	
18		48	
19		49	
20		50	
21		51	
22		52	
23		53	
24		54	
25		55	
26		56	
27		57	
28		58	
29		59	
		60	

x	y	x	y	x	y	x	y
0		15.		30.		45.	
0.5		15.5		30.5		45.5	
1.		16.		31.		46.	
1.5		16.5		31.5		46.5	
2.		17.		32.		47.	
2.5		17.5		32.5		47.5	
3.		18.		33.		48.	
3.5		18.5		33.5		48.5	
4.		19.		34.		49.	
4.5		19.5		34.5		49.5	
5.		20.		35.		50.	
5.5		20.5		35.5		50.5	
6.		21.		36.		51.	
6.5		21.5		36.5		51.5	
7.		22.		37.		52.	
7.5		22.5		37.5		52.5	
8.		23.		38.		53.	
8.5		23.5		38.5		53.5	
9.		24.		39.		54.	
9.5		24.5		39.5		54.5	
10.		25.		40.		55.	
10.5		25.5		40.5		55.5	
11.		26.		41.		56.	
11.5		26.5		41.5		56.5	
12.		27.		42.		57.	
12.5		27.5		42.5		57.5	
13.		28.		43.		58.	
13.5		28.5		43.5		58.5	
14.		29.		44.		59.	
14.5		29.5		44.5		59.5	
						60.	

