

Letter grades for Math 162 final exam of December 15, 2019

$$\begin{aligned}
 A+ &= 4.33 & A &= 4 & A- &= 3.67 \\
 B+ &= 3.33 & B &= 3 & B- &= 2.67 \\
 C+ &= 2.33 & C &= 2 & C- &= 1.67 \\
 D+ &= 1.33 & D &= 1 & D- &= 0.67
 \end{aligned}$$

Part A

If your score is x , then your letter grade is

$$f(x) = \frac{x(29x + 46)}{110240}$$

The median score for the exam is 106 out of 130, which translates to a letter grade of 3.00 or B. The following table shows the letter grade for each possible score.

x	$f(x)$	x	$f(x)$	x	$f(x)$	x	$f(x)$	x	$f(x)$	x	$f(x)$	x	$f(x)$
0	0.	20	0.11	40	0.44	60	0.97	80	1.72	100	2.67	120	3.84
1	0.	21	0.12	41	0.46	61	1.	81	1.76	101	2.73	121	3.9
2	0.	22	0.14	42	0.48	62	1.04	82	1.8	102	2.78	122	3.97
3	0.	23	0.15	43	0.5	63	1.07	83	1.85	103	2.83	123	4.03
4	0.01	24	0.16	44	0.53	64	1.1	84	1.89	104	2.89	124	4.1
5	0.01	25	0.17	45	0.55	65	1.14	85	1.94	105	2.94	125	4.16
6	0.01	26	0.19	46	0.58	66	1.17	86	1.98	106	3.	126	4.23
7	0.02	27	0.2	47	0.6	67	1.21	87	2.03	107	3.06	127	4.3
8	0.02	28	0.22	48	0.63	68	1.24	88	2.07	108	3.11	128	4.36
9	0.03	29	0.23	49	0.65	69	1.28	89	2.12	109	3.17	129	4.43
10	0.03	30	0.25	50	0.68	70	1.32	90	2.17	110	3.23	130	4.5
11	0.04	31	0.27	51	0.71	71	1.36	91	2.22	111	3.29		
12	0.04	32	0.28	52	0.73	72	1.39	92	2.26	112	3.35		
13	0.05	33	0.3	53	0.76	73	1.43	93	2.31	113	3.41		
14	0.06	34	0.32	54	0.79	74	1.47	94	2.36	114	3.47		
15	0.07	35	0.34	55	0.82	75	1.51	95	2.41	115	3.53		
16	0.07	36	0.36	56	0.85	76	1.55	96	2.46	116	3.59		
17	0.08	37	0.38	57	0.88	77	1.59	97	2.52	117	3.65		
18	0.09	38	0.4	58	0.91	78	1.63	98	2.57	118	3.71		
19	0.1	39	0.42	59	0.94	79	1.67	99	2.62	119	3.77		

Part B

If your score is x , then your letter grade is

$$f(x) = \frac{3x(x + 16)}{5120}$$

The median score for the exam is 64.5 out of 80, which translates to a letter grade of 3.04 or B. The following table shows the letter grade for each possible score.

x	$f(x)$	x	$f(x)$	x	$f(x)$	x	$f(x)$	x	$f(x)$	x	$f(x)$
0	0.	15	0.27	30	0.81	45	1.61	60	2.67	75	4.
1	0.01	16	0.3	31	0.85	46	1.67	61	2.75	76	4.1
2	0.02	17	0.33	32	0.9	47	1.73	62	2.83	77	4.2
3	0.03	18	0.36	33	0.95	48	1.8	63	2.92	78	4.3
4	0.05	19	0.39	34	1.	49	1.87	64	3.	79	4.4
5	0.06	20	0.42	35	1.05	50	1.93	65	3.08	80	4.5
6	0.08	21	0.46	36	1.1	51	2.	66	3.17		
7	0.09	22	0.49	37	1.15	52	2.07	67	3.26		
8	0.11	23	0.53	38	1.2	53	2.14	68	3.35		
9	0.13	24	0.56	39	1.26	54	2.21	69	3.44		
10	0.15	25	0.6	40	1.31	55	2.29	70	3.53		
11	0.17	26	0.64	41	1.37	56	2.36	71	3.62		
12	0.2	27	0.68	42	1.43	57	2.44	72	3.71		
13	0.22	28	0.72	43	1.49	58	2.51	73	3.81		
14	0.25	29	0.76	44	1.55	59	2.59	74	3.9		