## PAGE:

1. What grade do you expect (or did you receive) in this course?

|  | Response <br> Percent | Response <br> Count |
| :--- | ---: | ---: |
| A | $38.1 \%$ | 773 |
| B | $39.7 \%$ | 806 |
| C | $18.0 \%$ | 365 |
| D | $3.2 \%$ | 65 |
| F | answered question | 2,030 |
|  | skipped question | $\mathbf{9}$ |

2. Is Calculus II required for your intended major?

|  | Response <br> Percent | Response <br> Count |
| :--- | ---: | ---: |
| Yes | $65.9 \%$ | $\mathbf{1 , 3 4 1}$ |
| No | $24.7 \%$ | 503 |
| I'm not sure | $9.4 \%$ | 191 |
|  | answered question | $\mathbf{2 , 0 3 5}$ |
|  | skipped question | $\mathbf{4}$ |

3. Do you intend to take Calculus II?

|  |  | Response <br> Percent |
| :---: | ---: | :---: |
| Yes | Response <br> Count |  |
|  | $78.6 \%$ | 1,598 |
|  | answered question | 2,032 |
|  | skipped question | 7 |

3. Do you intend to take Calculus II?

| No | $15.4 \%$ | 313 |
| :--- | ---: | :---: |
| I'm not sure | $6.0 \%$ | 121 |
|  | answered question | $\mathbf{2 , 0 3 2}$ |
|  | skipped question | $\mathbf{7}$ |

PAGE:
4. If you do not intend to take Calculus II, check all reasons that apply.

|  | Response Percent | Response Count |
| :---: | :---: | :---: |
| I never intended to take Calculus II. | 54.5\% | 216 |
| I changed my major and now do not need to take Calculus II. | 23.5\% | 93 |
| My experience in Calculus I made me decide not to take calculus II. | 32.8\% | 130 |
| I have too many other courses I need to complete. | 36.9\% | 146 |
| To do well in Calculus II, I would need to spend more time and effort than I can afford. | 34.1\% | 135 |
| My grade in Calculus I was not good enough for me to continue to Calculus II. | 12.4\% | 49 |
| I do not believe I understand the ideas of Calculus I well enough to take Calculus II. | 22.5\% | 89 |
|  | answered question <br> skipped question | $\begin{array}{r} 396 \\ 1,643 \end{array}$ |

## PAGE:

5. When you started this class, did you intend to take Calculus II?
6. When you started this class, did you intend to take Calculus II?

|  | Response <br> Percent | Response <br> Count |
| :--- | ---: | ---: |
| Yes | $\mathbf{7 6 . 2 \%}$ | $\mathbf{1 , 4 0 1}$ |
| No | $13.1 \%$ | $\mathbf{2 4 0}$ |
| I wasn't sure | answered question | $\mathbf{1 , 8 3 9}$ |
|  | skipped question | $\mathbf{2 0 0}$ |

6. Select the appropriate response to each of the following:

|  | Strongly Disagree | Disagree | Slightly Disagree | Slightly Agree | Agree | Strongly Agree | Response Count |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| This course has increased my interest in taking more mathematics. | $\begin{aligned} & 9.6 \% \\ & (192) \end{aligned}$ | $\begin{array}{r} 16.1 \% \\ (321) \end{array}$ | $\begin{array}{r} 19.5 \% \\ (388) \end{array}$ | $\begin{array}{r} 27.8 \% \\ (554) \end{array}$ | $\begin{array}{r} 19.2 \% \\ (383) \end{array}$ | $\begin{aligned} & 7.6 \% \\ & (152) \end{aligned}$ | 1,990 |
| I am confident in my mathematical abilities. | $\begin{array}{r} 2.4 \% \\ (47) \end{array}$ | $\begin{aligned} & 5.9 \% \\ & (117) \end{aligned}$ | $\begin{array}{r} 10.7 \% \\ (213) \end{array}$ | $\begin{array}{r} 25.5 \% \\ (507) \end{array}$ | $\begin{array}{r} 42.9 \% \\ (852) \end{array}$ | $\begin{array}{r} 12.7 \% \\ (252) \end{array}$ | 1,988 |
| I am good at computing derivatives and integrals. | $\begin{array}{r} 1.5 \% \\ (30) \end{array}$ | $\begin{array}{r} 2.7 \% \\ (53) \end{array}$ | $\begin{aligned} & 6.1 \% \\ & (122) \end{aligned}$ | $\begin{array}{r} 24.9 \% \\ (495) \end{array}$ | $\begin{array}{r} 46.6 \% \\ (925) \end{array}$ | $\begin{array}{r} 18.1 \% \\ (360) \end{array}$ | 1,985 |
| I am able to use ideas of calculus (e.g., differentiation, integration) to solve word problems that I have not seen before. | $\begin{array}{r} 3.7 \% \\ (74) \end{array}$ | $\begin{aligned} & 7.7 \% \\ & (154) \end{aligned}$ | $\begin{array}{r} 13.6 \% \\ (271) \end{array}$ | $\begin{array}{r} 32.8 \% \\ (652) \end{array}$ | $\begin{array}{r} 33.4 \% \\ (664) \end{array}$ | $\begin{aligned} & 8.7 \% \\ & (173) \end{aligned}$ | 1,988 |
| My previous math courses prepared me to succeed in this course. | $\begin{array}{r} 5.0 \% \\ (99) \end{array}$ | $\begin{aligned} & 7.1 \% \\ & (140) \end{aligned}$ | $\begin{aligned} & 9.7 \% \\ & (193) \end{aligned}$ | $\begin{array}{r} 21.6 \% \\ (428) \end{array}$ | $\begin{array}{r} 31.5 \% \\ (626) \end{array}$ | $\begin{array}{r} 25.1 \% \\ (499) \end{array}$ | 1,985 |
| I enjoy doing mathematics. | $\begin{aligned} & 7.3 \% \\ & (144) \end{aligned}$ | $\begin{aligned} & 8.1 \% \\ & (160) \end{aligned}$ | $\begin{array}{r} 11.9 \% \\ (236) \end{array}$ | $\begin{array}{r} 27.5 \% \\ (546) \end{array}$ | $\begin{array}{r} 30.3 \% \\ (601) \end{array}$ | $\begin{array}{r} 15.0 \% \\ (298) \end{array}$ | 1,985 |
| Mathematics is about getting exact answers to | $\begin{array}{r} 2.8 \% \\ (55) \end{array}$ | $\begin{array}{r} 10.6 \% \\ (210) \end{array}$ | $\begin{array}{r} 16.2 \% \\ (323) \end{array}$ | $\begin{array}{r} 31.7 \% \\ (630) \end{array}$ | $\begin{array}{r} 28.5 \% \\ (568) \end{array}$ | $\begin{array}{r} 10.3 \% \\ (204) \end{array}$ | 1,990 |
|  |  |  |  |  | answere | question question | $\begin{aligned} & 1,992 \\ & 47 \end{aligned}$ |

6. Select the appropriate response to each of the following:
specific problems.

PAGE:
7. Please select the most appropriate response below.

8. Please select the most appropriate response below.

9. Please select the most appropriate response below.

|  | A a natural part of solving the problem 1 | 2 | 3 | $\begin{gathered} \text { B } \\ \text { an } \\ \text { indication of } \\ \text { my } \\ \text { weakness } \\ \text { in } \\ \text { mathematics } \\ 4 \end{gathered}$ | Rating <br> Average | Response Count |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| For me, making unsuccessful attempts when solving a mathematics problem is: | $\begin{array}{r} 26.5 \% \\ (519) \end{array}$ | $\begin{array}{r} 40.0 \% \\ (785) \end{array}$ | $\begin{array}{r} 25.2 \% \\ (495) \end{array}$ | 8.3\% (163) | 2.15 | 1,962 |
|  |  |  |  | answere skippe | skipped question | $1,962$ <br> 77 |

PAGE:
10. Please select the most appropriate response below.
$\left.\begin{array}{lcccccc}\hline & \begin{array}{c}\text { A } \\ \text { solve } \\ \text { specific } \\ \text { kinds } \\ \text { of } \\ \text { problems }\end{array} & 2 & 3 & & \begin{array}{c}\text { B } \\ \text { make } \\ \text { connections } \\ \text { and form } \\ \text { logical } \\ \text { arguments } \\ 4\end{array} & \begin{array}{c}\text { Rating } \\ \text { Average }\end{array}\end{array} \begin{array}{c}\text { Response } \\ \text { Count }\end{array}\right]$
11. Please select the most appropriate response below.

| A |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| I |  | B | B can <br> understand | 2 | 3 | | Rating |
| :---: |
| Average |$\quad$| Response |
| :---: |
| Count |

11. Please select the most appropriate response below.

12. Please select the most appropriate response below.

|  | A I would never take another mathematics course. 1 | 2 | 3 | B <br> I would continue to take mathematics. 4 | Rating Average | Response Count |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| If I had a choice: | 18.2\% (350) | $\begin{array}{r} 21.8 \% \\ (420) \end{array}$ | $\begin{array}{r} 28.4 \% \\ (547) \end{array}$ | 31.6\% (608) | 2.73 | 1,925 |
|  |  |  |  | answered question |  | 1,925 |
|  |  |  |  | skipped question |  | 114 |

13. Please select the most appropriate response below.

| A memorize it the way it is presented. 1 | 2 | 3 | B <br> make sense of the material sol understand it. | Rating <br> Average | Response Count |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | answere | question | 1,921 |
|  |  |  | skippe | question | 118 |

13. Please select the most appropriate response below.

|  | 4 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| When studying Calculus I in a textbook or course materials, I tend to: | 6.5\% (125) | $\begin{array}{r} 18.3 \% \\ (351) \end{array}$ | $\begin{array}{r} 37.6 \% \\ (723) \end{array}$ | $\begin{array}{r} 37.6 \% \\ (722) \end{array}$ | 3.06 | 1,921 |
|  |  |  |  | answer | stion | 1,921 |
|  |  |  |  | skippe |  | 118 |

## PAGE:

14. Please select the most appropriate answer below:

|  | A understand underlying mathematical ideas 1 | 2 | 3 | $\begin{gathered} B \\ \text { find } \\ \text { answers } \\ \text { to } \\ \text { problems } \\ 4 \end{gathered}$ | Rating <br> Average | Response Count |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| When solving <br> mathematics problems, <br> graphing calculators or $\begin{array}{lrrrrr} 17.3 \%(326) & 27.6 \% & 34.6 \% & 20.5 \% \\ (521) & (654) & (387) & 2.58 & 1,888 \end{array}$ <br> computers help me to: |  |  |  |  |  |  |
|  |  |  |  | answere <br> skipp | question <br> question | $\begin{aligned} & 1,888 \\ & 151 \end{aligned}$ |

15. Please select the most appropriate response below.

| A work problems so students know how to do them 1 | 2 | 3 | B help students learn to reason through problems on their own 4 | Rating Average | Response Count |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | answere | question | 1,898 |
|  |  |  | skipp |  | 141 |

15. Please select the most appropriate response below.

| The primary role of a | $10.0 \%$ | $22.7 \%$ | $36.9 \%$ | $30.5 \%$ | 2.88 | 1,898 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| mathematics instructor | $(189)$ | $(430)$ | $(700)$ | $(579)$ |  |  |
| is to: |  |  | answered question | 1,898 |  |  |
|  |  |  | skipped question | 141 |  |  |

16. Please select the most appropriate response below.

|  | A <br> waited for a student to answer 1 | 2 | 3 | B <br> answered the question if no one responded quickly 4 | Rating <br> Average | Response Count |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| When my Calculus instructor asked a question addressed to the whole class, s/he: | $\begin{array}{r} 23.0 \% \\ (436) \end{array}$ | $\begin{array}{r} 39.9 \% \\ (758) \end{array}$ | $\begin{array}{r} 25.2 \% \\ (479) \end{array}$ | $\begin{array}{r} 11.9 \% \\ (226) \end{array}$ | 2.26 | 1,899 |
|  |  |  |  | answere <br> skippe | question <br> question | $\begin{aligned} & 1,899 \\ & 140 \end{aligned}$ |
| 17. Please select the most appropriate response below. |  |  |  |  |  |  |


|  | A solved the problem for me 1 | 2 | 3 | B <br> helped me figure out how to solve the problem 4 | Rating <br> Average | Response Count |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| When I asked a question about a problem I was | $\begin{aligned} & 7.5 \% \\ & (141) \end{aligned}$ | $\begin{array}{r} 16.4 \% \\ (309) \end{array}$ | $\begin{array}{r} 39.3 \% \\ (740) \end{array}$ | $\begin{array}{r} 36.8 \% \\ (694) \end{array}$ | 3.05 | 1,884 |
|  |  |  |  | answere | question | 1,884 |
|  |  |  |  | skippe | question | 155 |

17. Please select the most appropriate response below.
having difficulty solving,
my instructor:

| answered question | 1,884 |
| ---: | :---: |
| skipped question | 155 |

PAGE:
18. My Calculus instructor:

|  | Strongly Disagree | Disagree | Slightly Disagree | Slightly Agree | Agree | Strongly Agree | Response Count |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| asked questions to determine if I understood what was being discussed. | $\begin{array}{r} 3.1 \% \\ (57) \end{array}$ | $\begin{aligned} & 7.2 \% \\ & (133) \end{aligned}$ | $\begin{aligned} & 9.9 \% \\ & (183) \end{aligned}$ | $\begin{array}{r} 24.9 \% \\ (461) \end{array}$ | $\begin{array}{r} 40.6 \% \\ (751) \end{array}$ | $\begin{array}{r} 14.3 \% \\ (265) \end{array}$ | 1,850 |
| listened carefully to my questions and comments. | $\begin{array}{r} 2.7 \% \\ (49) \end{array}$ | $\begin{array}{r} 4.0 \% \\ (73) \end{array}$ | $\begin{aligned} & 5.4 \% \\ & (100) \end{aligned}$ | $\begin{array}{r} 21.3 \% \\ (393) \end{array}$ | $\begin{array}{r} \text { 42.1\% } \\ (777) \end{array}$ | $\begin{array}{r} 24.6 \% \\ (455) \end{array}$ | 1,847 |
| discussed applications of calculus. | $\begin{array}{r} 1.9 \% \\ (35) \end{array}$ | $\begin{array}{r} 3.5 \% \\ (65) \end{array}$ | $\begin{aligned} & 7.5 \% \\ & (139) \end{aligned}$ | $\begin{array}{r} 23.2 \% \\ (429) \end{array}$ | $\begin{array}{r} 41.6 \% \\ (770) \end{array}$ | $\begin{array}{r} 22.2 \% \\ (411) \end{array}$ | 1,849 |
| allowed time for me to understand difficult ideas. | $\begin{array}{r} 4.2 \% \\ (78) \end{array}$ | $\begin{aligned} & 7.2 \% \\ & (133) \end{aligned}$ | $\begin{array}{r} 11.8 \% \\ (217) \end{array}$ | $\begin{array}{r} 25.8 \% \\ (476) \end{array}$ | $\begin{array}{r} 35.6 \% \\ (657) \end{array}$ | $\begin{array}{r} 15.4 \% \\ (285) \end{array}$ | 1,846 |
| helped me become a better problem solver. | $\begin{array}{r} 3.5 \% \\ (65) \end{array}$ | $\begin{aligned} & 6.0 \% \\ & (111) \end{aligned}$ | $\begin{array}{r} 11.0 \% \\ (203) \end{array}$ | $\begin{array}{r} 27.6 \% \\ (511) \end{array}$ | $\begin{array}{r} 36.0 \% \\ (667) \end{array}$ | $\begin{array}{r} 15.9 \% \\ (294) \end{array}$ | 1,851 |
| provided explanations that were understandable. | $\begin{array}{r} 3.7 \% \\ (69) \end{array}$ | $\begin{array}{r} 4.6 \% \\ (85) \end{array}$ | $\begin{aligned} & 8.8 \% \\ & (162) \end{aligned}$ | $\begin{array}{r} 22.2 \% \\ (410) \end{array}$ | $\begin{array}{r} 40.0 \% \\ (741) \end{array}$ | $\begin{array}{r} 20.7 \% \\ (384) \end{array}$ | 1,851 |
| was available to make appointments outside of office hours, if needed. | $\begin{array}{r} 1.3 \% \\ (24) \end{array}$ | $\begin{array}{r} 0.9 \% \\ (17) \end{array}$ | $\begin{array}{r} 3.2 \% \\ (59) \end{array}$ | $\begin{array}{r} 15.0 \% \\ (276) \end{array}$ | $\begin{array}{r} 37.3 \% \\ (686) \end{array}$ | $\begin{array}{r} 42.3 \% \\ (778) \end{array}$ | 1,840 |
| discouraged me from wanting to continue taking Calculus. | $\begin{array}{r} 35.6 \% \\ (659) \end{array}$ | $\begin{array}{r} 29.8 \% \\ (552) \end{array}$ | $\begin{array}{r} 12.7 \% \\ (235) \end{array}$ | $\begin{aligned} & 9.6 \% \\ & (177) \end{aligned}$ | $\begin{aligned} & 7.7 \% \\ & (143) \end{aligned}$ | $\begin{array}{r} 4.7 \% \\ (87) \end{array}$ | 1,853 |


| answered question | 1,855 |
| ---: | :---: |
| skipped question | 184 |

19. During class time, how frequently did your instructor:

|  | Not at all 1 | 2 | 3 | 4 | 5 | Very often 6 | Rating Average | Response Count |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| show how to work specific problems? | 0.4\% <br> (8) | $\begin{array}{r} 2.5 \% \\ (46) \end{array}$ | $\begin{aligned} & 6.3 \% \\ & (117) \end{aligned}$ | $\begin{array}{r} 16.8 \% \\ (312) \end{array}$ | $\begin{array}{r} 32.5 \% \\ (604) \end{array}$ | $\begin{array}{r} 41.5 \% \\ (770) \end{array}$ | 5.03 | 1,857 |
| have students work with one another? | $\begin{array}{r} 27.8 \% \\ (516) \end{array}$ | $\begin{aligned} & 9.2 \% \\ & (171) \end{aligned}$ | $\begin{aligned} & 7.7 \% \\ & (143) \end{aligned}$ | $\begin{array}{r} 12.0 \% \\ (223) \end{array}$ | $\begin{array}{r} 15.2 \% \\ (283) \end{array}$ | $\begin{array}{r} 28.1 \% \\ (523) \end{array}$ | 3.62 | 1,859 |
| hold a whole-class discussion? | $\begin{array}{r} 23.0 \% \\ (428) \end{array}$ | $\begin{array}{r} 11.0 \% \\ (205) \end{array}$ | $\begin{array}{r} 11.3 \% \\ (209) \end{array}$ | $\begin{array}{r} 14.3 \% \\ (266) \end{array}$ | $\begin{array}{r} 18.9 \% \\ (351) \end{array}$ | $\begin{array}{r} 21.4 \% \\ (398) \end{array}$ | 3.59 | 1,857 |
| have students give presentations? | $\begin{array}{r} 57.9 \% \\ (1,074) \end{array}$ | $\begin{array}{r} 12.8 \% \\ (237) \end{array}$ | $\begin{array}{r} 10.5 \% \\ (194) \end{array}$ | $\begin{aligned} & 8.9 \% \\ & (165) \end{aligned}$ | $\begin{aligned} & 6.3 \% \\ & (117) \end{aligned}$ | $\begin{array}{r} 3.6 \% \\ (67) \end{array}$ | 2.04 | 1,854 |
| have students work individually on problems or tasks? | $\begin{array}{r} 16.1 \% \\ (299) \end{array}$ | $\begin{array}{r} 12.1 \% \\ (225) \end{array}$ | $\begin{array}{r} 15.3 \% \\ (283) \end{array}$ | $\begin{array}{r} 22.9 \% \\ (424) \end{array}$ | $\begin{gathered} 19.7 \% \\ (365) \end{gathered}$ | $\begin{array}{r} 13.9 \% \\ (258) \end{array}$ | 3.60 | 1,854 |
| lecture? | $\begin{array}{r} 3.0 \% \\ (56) \end{array}$ | $\begin{aligned} & 7.1 \% \\ & (132) \end{aligned}$ | $\begin{array}{r} 10.3 \% \\ (191) \end{array}$ | $\begin{array}{r} 15.7 \% \\ (292) \end{array}$ | $\begin{array}{r} 19.4 \% \\ (361) \end{array}$ | $\begin{array}{r} 44.4 \% \\ (825) \end{array}$ | 4.75 | 1,857 |
| ask questions? | $\begin{array}{r} 2.0 \% \\ (37) \end{array}$ | $\begin{array}{r} 4.6 \% \\ (85) \end{array}$ | $\begin{aligned} & 9.6 \% \\ & (178) \end{aligned}$ | $\begin{array}{r} 24.9 \% \\ (461) \end{array}$ | $\begin{array}{r} 34.7 \% \\ (643) \end{array}$ | $24.2 \%$ <br> (449) | 4.58 | 1,853 |
| ask students to explain their thinking? | $\begin{array}{r} 12.3 \% \\ (227) \end{array}$ | $\begin{array}{r} 13.6 \% \\ (252) \end{array}$ | $\begin{array}{r} 13.5 \% \\ (249) \end{array}$ | $\begin{gathered} 19.3 \% \\ (357) \end{gathered}$ | $\begin{array}{r} 22.4 \% \\ (414) \end{array}$ | $\begin{array}{r} 19.0 \% \\ (352) \end{array}$ | 3.83 | 1,851 |
|  |  |  |  |  |  | skipped question |  | $\begin{aligned} & 1,860 \\ & 179 \end{aligned}$ |

PAGE:
20. How frequently did your instructor?

|  | Not at all 1 | 2 | 3 | 4 | 5 | Very often 6 | Rating Average | Response Count |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| prepare extra material to help students understand calculus concepts or procedures? | $\begin{aligned} & 9.5 \% \\ & (172) \end{aligned}$ | $\begin{array}{r} 12.9 \% \\ (234) \end{array}$ | $\begin{array}{r} 15.4 \% \\ (279) \end{array}$ | $\begin{array}{r} 25.6 \% \\ (464) \end{array}$ | $\begin{array}{r} 21.0 \% \\ (380) \end{array}$ | $\begin{array}{r} 15.7 \% \\ (284) \end{array}$ | 3.83 | 1,813 |
| answered question <br> skipped question |  |  |  |  |  |  |  | $\begin{aligned} & 1,816 \\ & 223 \end{aligned}$ |

20. How frequently did your instructor?

| require you to explain your thinking on your homework? | $\begin{array}{r} 19.9 \% \\ (361) \end{array}$ | $\begin{array}{r} 12.7 \% \\ (230) \end{array}$ | $\begin{array}{r} 15.8 \% \\ (286) \end{array}$ | $\begin{array}{r} 19.5 \% \\ (353) \end{array}$ | $\begin{array}{r} 16.3 \% \\ (295) \end{array}$ | $\begin{array}{r} 15.8 \% \\ (287) \end{array}$ | 3.47 | 1,812 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| require you to explain your thinking on exams? | $\begin{aligned} & 9.9 \% \\ & (179) \end{aligned}$ | $\begin{aligned} & 8.8 \% \\ & (159) \end{aligned}$ | $\begin{gathered} 11.5 \% \\ (207) \end{gathered}$ | $\begin{array}{r} 19.7 \% \\ (355) \end{array}$ | $\begin{array}{r} 21.3 \% \\ (385) \end{array}$ | $\begin{array}{r} 28.8 \% \\ (520) \end{array}$ | 4.20 | 1,805 |
| assign sections in your textbook for you to read before coming to class? | $\begin{array}{r} 17.2 \% \\ (311) \end{array}$ | $\begin{aligned} & 9.4 \% \\ & (170) \end{aligned}$ | $\begin{aligned} & 9.9 \% \\ & (180) \end{aligned}$ | $\begin{array}{r} 11.9 \% \\ (216) \end{array}$ | $\begin{array}{r} 16.0 \% \\ (289) \end{array}$ | $\begin{array}{r} 35.6 \% \\ (644) \end{array}$ | 4.07 | 1,810 |
|  |  |  |  |  | answered question |  |  | 1,816 |
|  |  |  |  |  | skipped question |  |  | 223 |

21. My Calculus instructor:

22. My Calculus instructor:

|  | $6.7 \%$ | $7.7 \%$ | $11.1 \%$ | $26.3 \%$ | $\mathbf{2 6 . 8 \%}$ | $21.4 \%$ |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| made class interesting. | $(122)$ | $(140)$ | $(201)$ | $(478)$ | $(486)$ | $(388)$ | 1,815 |
|  |  |  |  |  | answered question | $\mathbf{1 , 8 1 9}$ |  |
|  |  |  |  |  | skipped question | $\mathbf{2 2 0}$ |  |

## PAGE:

22. Indicate how often the following occurred.

|  | Never | Some <br> class sessions | About half the class sessions | Most class sessions | Every class session | Response Count |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| My instructor assigned homework. | $\begin{array}{r} 0.8 \% \\ (14) \end{array}$ | $\begin{aligned} & 5.8 \% \\ & (105) \end{aligned}$ | $\begin{aligned} & 6.9 \% \\ & (124) \end{aligned}$ | $\begin{array}{r} 30.5 \% \\ (552) \end{array}$ | $\begin{array}{r} 56.1 \% \\ (1,015) \end{array}$ | 1,810 |
| Homework was collected (either hard copy or online). | $\begin{gathered} 29.0 \% \\ (527) \end{gathered}$ | $\begin{array}{r} 21.5 \% \\ (391) \end{array}$ | $\begin{gathered} 10.0 \% \\ (181) \end{gathered}$ | $\begin{gathered} 22.9 \% \\ (415) \end{gathered}$ | $\begin{gathered} 16.6 \% \\ (301) \end{gathered}$ | 1,815 |
| My instructor gave a short quiz. | $\begin{array}{r} 43.3 \% \\ (784) \end{array}$ | $\begin{array}{r} 27.1 \% \\ (491) \end{array}$ | $\begin{gathered} 14.1 \% \\ (255) \end{gathered}$ | $\begin{gathered} 11.0 \% \\ (199) \end{gathered}$ | $\begin{array}{r} 4.5 \% \\ (82) \end{array}$ | 1,811 |
| My instructor used technology. | $\begin{array}{r} 21.7 \% \\ (391) \end{array}$ | $\begin{array}{r} 21.7 \% \\ (391) \end{array}$ | $\begin{gathered} 15.2 \% \\ (275) \end{gathered}$ | $\begin{gathered} 19.6 \% \\ (354) \end{gathered}$ | $\begin{array}{r} 21.9 \% \\ (395) \end{array}$ | 1,806 |
| answered question |  |  |  |  |  | $\begin{aligned} & 1,817 \\ & 222 \end{aligned}$ |

23. Which of the following technologies did you use during your calculus class? (Check all that apply)

|  | Response <br> Percent | Response <br> Count |
| :--- | ---: | ---: |
| None | $23.6 \%$ | 425 |
| Graphing Calculator | $40.6 \%$ | 731 |
|  | answered question | 1,800 |
|  | skipped question | 239 |

23. Which of the following technologies did you use during your calculus class? (Check all that apply)

| Computers | $59.5 \%$ | 1,071 |
| :--- | ---: | :---: |
| Clickers or some other electronic <br> response system | $12.5 \%$ | 225 |
|  | answered question | 1,800 |
|  | skipped question | 239 |

## PAGE:

24. How frequently were the following technologies used during class?

|  | Never | Some class sessions | About half the class sessions | Most class sessions | $\begin{aligned} & \text { Every } \\ & \text { class } \\ & \text { session } \end{aligned}$ | Response Count |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| My instructor demonstrated mathematics with a graphing calculator. | $\begin{array}{r} 64.7 \% \\ (1,163) \end{array}$ | $\begin{array}{r} 19.8 \% \\ (356) \end{array}$ | $\begin{aligned} & 6.8 \% \\ & (122) \end{aligned}$ | $\begin{aligned} & 6.6 \% \\ & (118) \end{aligned}$ | $\begin{array}{r} 2.2 \% \\ (39) \end{array}$ | 1,798 |
| I used a graphing calculator. | $\begin{array}{r} 53.0 \% \\ (952) \end{array}$ | $\begin{gathered} 19.8 \% \\ (355) \end{gathered}$ | $\begin{aligned} & 9.6 \% \\ & (172) \end{aligned}$ | $\begin{array}{r} 11.9 \% \\ (214) \end{array}$ | $\begin{aligned} & 5.8 \% \\ & (104) \end{aligned}$ | 1,797 |
| My instructor demonstrated mathematics with computer algebra system (e.g., Maple, Mathematica, MATLAB). | $\begin{array}{r} 55.2 \% \\ (990) \end{array}$ | $\begin{array}{r} 22.3 \% \\ (400) \end{array}$ | $\begin{array}{r} 10.7 \% \\ (192) \end{array}$ | $\begin{aligned} & 8.4 \% \\ & (150) \end{aligned}$ | $\begin{array}{r} 3.5 \% \\ (63) \end{array}$ | 1,795 |
| I used a computer algebra system (e.g., Maple, Mathematica, MATLAB). | $\begin{array}{r} 61.0 \% \\ (1,092) \end{array}$ | $\begin{array}{r} 21.5 \% \\ (384) \end{array}$ | $\begin{aligned} & 9.3 \% \\ & (166) \end{aligned}$ | $\begin{aligned} & 6.0 \% \\ & (107) \end{aligned}$ | $\begin{array}{r} 2.2 \% \\ (40) \end{array}$ | 1,789 |
|  |  |  |  | answered skipped | question | $\begin{aligned} & 1,801 \\ & 238 \end{aligned}$ |

25. How did you use technology during your class? (Check only those that apply)

| answered question | 1,532 |
| ---: | :---: |
| skipped question | 507 |

25. How did you use technology during your class? (Check only those that apply)

|  | Response <br> Percent | Response <br> Count |
| :--- | ---: | ---: |
| To find answers to problems. | $63.2 \%$ | 968 |
| To understand underlying <br> mathematical ideas. | $57.4 \%$ | 879 |
| To check written answers after I <br> worked them out by hand | $\mathbf{6 9 . 3 \%}$ | $\mathbf{1 , 0 6 1}$ |
|  | answered question |  |
| skipped question |  |  |

26. How did your instructor use technology during your class? (Check only those that apply)

|  | Response <br> Percent | Response <br> Count |
| :--- | ---: | ---: |
| To illustrate ideas. | $\mathbf{7 5 . 5 \%}$ | $\mathbf{1 , 0 8 2}$ |
| To find answers to problems. | $45.5 \%$ | 652 |
| To check answers after we worked <br> them out by hand. | $54.5 \%$ | 781 |
| To illustrate motion/dynamic <br> animations. | answered question | $\mathbf{1 , 4 3 4}$ |
|  | skipped question | $\mathbf{6 0 5}$ |

27. Does your calculator find the symbolic derivative of a function?

|  | Response <br> Percent | Response <br> Count |
| :--- | ---: | ---: |
| Yes | $19.8 \%$ | 353 |
| No | $57.6 \%$ | $\mathbf{1 , 0 2 6}$ |
|  | answered question | 1,781 |
|  | skipped question | 258 |

27. Does your calculator find the symbolic derivative of a function?

| N/A (I don't use a calculator) | 22.6\% | 402 |
| :---: | :---: | :---: |
|  | answered question | 1,781 |
|  | skipped question | 258 |
| 28. Were you allowed to use a graphing calculator during your exams? |  |  |
|  | Response Percent | Response Count |
| Yes | 26.9\% | 482 |
| No | 73.1\% | 1,312 |
|  | answered question <br> skipped question | $\begin{aligned} & 1,794 \\ & 245 \end{aligned}$ |

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29. Assignments completed outside of class time were:

|  | Not at all 1 | 2 | 3 | 4 | 5 | Very often 6 | $\begin{aligned} & \text { Response } \\ & \text { Count } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| completed and graded online. | $\begin{array}{r} 47.6 \% \\ (845) \end{array}$ | $\begin{array}{r} 10.3 \% \\ (182) \end{array}$ | $\begin{aligned} & 8.0 \% \\ & (142) \end{aligned}$ | $\begin{aligned} & 7.0 \% \\ & (124) \end{aligned}$ | $\begin{aligned} & 6.1 \% \\ & (108) \end{aligned}$ | $\begin{array}{r} 21.1 \% \\ (374) \end{array}$ | 1,775 |
| graded and returned to me. | $\begin{array}{r} 24.7 \% \\ (440) \end{array}$ | $\begin{aligned} & 6.2 \% \\ & (111) \end{aligned}$ | $\begin{aligned} & 6.8 \% \\ & (121) \end{aligned}$ | $\begin{aligned} & 7.9 \% \\ & (140) \end{aligned}$ | $\begin{gathered} 11.4 \% \\ (203) \end{gathered}$ | $\begin{array}{r} 42.9 \% \\ (764) \end{array}$ | 1,779 |
| returned with helpful feedback/comments. | $\begin{array}{r} 32.9 \% \\ (583) \end{array}$ | $\begin{gathered} 11.6 \% \\ (206) \end{gathered}$ | $\begin{gathered} 12.7 \% \\ (225) \end{gathered}$ | $\begin{array}{r} 15.1 \% \\ (268) \end{array}$ | $\begin{gathered} 14.9 \% \\ (265) \end{gathered}$ | $\begin{array}{r} 12.8 \% \\ (227) \end{array}$ | 1,774 |
| submitted as a group project. | $\begin{array}{r} 50.9 \% \\ (901) \end{array}$ | $\begin{gathered} 10.1 \% \\ (179) \end{gathered}$ | $\begin{array}{r} 10.6 \% \\ (187) \end{array}$ | $\begin{gathered} 13.3 \% \\ (235) \end{gathered}$ | $\begin{aligned} & 8.1 \% \\ & (143) \end{aligned}$ | $\begin{aligned} & 7.1 \% \\ & (126) \end{aligned}$ | 1,771 |
| challenging but doable. | $\begin{array}{r} 4.1 \% \\ (72) \end{array}$ | $\begin{aligned} & 5.7 \% \\ & (102) \end{aligned}$ | $\begin{gathered} 16.5 \% \\ (292) \end{gathered}$ | $\begin{array}{r} 25.6 \% \\ (455) \end{array}$ | $\begin{gathered} 30.4 \% \\ (539) \end{gathered}$ | $\begin{gathered} 17.7 \% \\ (314) \end{gathered}$ | 1,774 |
| answered question $\quad 1,786$ |  |  |  |  |  |  |  |

30. The assignments completed outside of class time required that I:

|  | Not at all 1 | 2 | 3 | 4 | 5 | Very often 6 | Response Count |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| solve word problems. | $\begin{array}{r} 2.0 \% \\ (36) \end{array}$ | $\begin{array}{r} 3.1 \% \\ (55) \end{array}$ | $\begin{array}{r} 10.7 \% \\ (191) \end{array}$ | $\begin{array}{r} 26.3 \% \\ (468) \end{array}$ | $\begin{gathered} \text { 29.5\% } \\ (525) \end{gathered}$ | $\begin{array}{r} 28.5 \% \\ (507) \end{array}$ | 1,782 |
| solve problems unlike those done in class or in the book. | $\begin{array}{r} 12.2 \% \\ (216) \end{array}$ | $\begin{array}{r} 16.9 \% \\ (299) \end{array}$ | $\begin{array}{r} 16.3 \% \\ (289) \end{array}$ | $\begin{array}{r} 20.5 \% \\ (363) \end{array}$ | $\begin{array}{r} 18.0 \% \\ (320) \end{array}$ | $\begin{array}{r} 16.1 \% \\ (286) \end{array}$ | 1,773 |
| use technology to understand ideas. | $\begin{array}{r} 25.3 \% \\ (448) \end{array}$ | $\begin{array}{r} 22.5 \% \\ (398) \end{array}$ | $\begin{array}{r} 17.6 \% \\ (312) \end{array}$ | $\begin{array}{r} 18.5 \% \\ (327) \end{array}$ | $\begin{aligned} & 9.8 \% \\ & (173) \end{aligned}$ | $\begin{aligned} & 6.4 \% \\ & (113) \end{aligned}$ | 1,771 |
|  |  |  |  |  | wered | estion | $1,786$ <br> 253 |

31. The exam questions required that I solve:

|  | Not at all 1 | 2 | 3 | 4 | 5 | Very often 6 | Response Count |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| word problems. | $\begin{array}{r} 1.9 \% \\ (33) \end{array}$ | $\begin{array}{r} 3.7 \% \\ (65) \end{array}$ | $\begin{array}{r} 11.0 \% \\ (195) \end{array}$ | $\begin{array}{r} 20.8 \% \\ (370) \end{array}$ | $\begin{array}{r} 24.4 \% \\ (434) \end{array}$ | $\begin{array}{r} 38.3 \% \\ (681) \end{array}$ | 1,778 |
| problems unlike those done in class or in the book. | $\begin{gathered} 19.2 \% \\ (341) \end{gathered}$ | $\begin{array}{r} 21.5 \% \\ (381) \end{array}$ | $\begin{array}{r} 17.5 \% \\ (311) \end{array}$ | $\begin{array}{r} 18.1 \% \\ (322) \end{array}$ | $\begin{array}{r} 12.5 \% \\ (222) \end{array}$ | $\begin{array}{r} 11.2 \% \\ (199) \end{array}$ | 1,776 |
|  |  |  |  | answered question |  |  | 1,786 |
|  |  |  |  | skipped question |  |  | 253 |

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32. Please select the most appropriate response for each of the following.

|  | Strongly <br> Disagree | Disagree | Slightly <br> Disagree | Slightly <br> Agree | Agree | Strongly <br> Agree |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Response <br> Count |  |  |  |  |  |  |
|  |  |  | answered question | 1,774 |  |  |

32. Please select the most appropriate response for each of the following.

| My Calculus exams were a good assessment of what I learned. | $\begin{array}{r} 4.8 \% \\ (85) \end{array}$ | $\begin{aligned} & 7.2 \% \\ & (127) \end{aligned}$ | $\begin{aligned} & 9.7 \% \\ & (172) \end{aligned}$ | $\begin{array}{r} 21.3 \% \\ (378) \end{array}$ | $\begin{array}{r} 39.7 \% \\ (703) \end{array}$ | $\begin{array}{r} 17.4 \% \\ (308) \end{array}$ | 1,773 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| My exams were graded fairly. | $\begin{array}{r} 2.6 \% \\ (46) \end{array}$ | 4.1\% <br> (73) | $\begin{aligned} & 8.9 \% \\ & (157) \end{aligned}$ | $\begin{array}{r} 19.6 \% \\ (348) \end{array}$ | $\begin{array}{r} 42.3 \% \\ (750) \end{array}$ | $\begin{array}{r} 22.5 \% \\ (400) \end{array}$ | 1,774 |
| My homework was graded fairly. | $\begin{array}{r} 3.4 \% \\ (60) \end{array}$ | $\begin{array}{r} 3.1 \% \\ (55) \end{array}$ | $\begin{array}{r} 5.3 \% \\ (92) \end{array}$ | $\begin{array}{r} 17.2 \% \\ (301) \end{array}$ | $\begin{array}{r} 43.3 \% \\ (757) \end{array}$ | $\begin{array}{r} 27.7 \% \\ (484) \end{array}$ | 1,749 |
|  |  |  |  | answered question |  |  | $\begin{aligned} & 1,774 \\ & 265 \end{aligned}$ |

33. During class:

34. How often did you do the following?

| Never | Once a month | A few times a | Once a week | More than once | Response Count |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | answered question |  |  | 1,775 |
|  |  | skipped question |  |  | 264 |

34. How often did you do the following?


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35. Check the box that describes your level of agreement with the following statements.

|  | Strongly <br> Disagree | Disagree | Slightly Disagree | Slightly Agree | Agree | Strongly Agree | Response Count |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| The homework for the course helped me learn the material. | $\begin{array}{r} 3.2 \% \\ (56) \end{array}$ | $\begin{array}{r} 3.7 \% \\ (65) \end{array}$ | $\begin{array}{r} 4.9 \% \\ (87) \end{array}$ | $\begin{array}{r} 23.4 \% \\ (411) \end{array}$ | $\begin{array}{r} 40.7 \% \\ (716) \end{array}$ | $\begin{array}{r} 24.1 \% \\ (425) \end{array}$ | 1,760 |
| The textbook and/or class materials helped me learn the material. | $\begin{array}{r} 5.6 \% \\ (98) \end{array}$ | $\begin{aligned} & 5.9 \% \\ & (103) \end{aligned}$ | $\begin{aligned} & 8.1 \% \\ & (142) \end{aligned}$ | $\begin{array}{r} 27.6 \% \\ (486) \end{array}$ | $\begin{array}{r} 34.6 \% \\ (609) \end{array}$ | $\begin{array}{r} 18.3 \% \\ (322) \end{array}$ | 1,760 |
| The textbook or reading materials for the course were readable. | $\begin{array}{r} 5.7 \% \\ (99) \end{array}$ | $\begin{aligned} & 6.1 \% \\ & (107) \end{aligned}$ | $\begin{array}{r} 12.7 \% \\ (222) \end{array}$ | $\begin{array}{r} 27.0 \% \\ (473) \end{array}$ | $\begin{array}{r} 34.4 \% \\ (603) \end{array}$ | $\begin{array}{r} 14.1 \% \\ (247) \end{array}$ | 1,751 |
| I completed all my assigned homework. | $\begin{aligned} & 6.7 \% \\ & (118) \end{aligned}$ | $\begin{array}{r} 11.4 \% \\ (200) \end{array}$ | $\begin{array}{r} 10.1 \% \\ (177) \end{array}$ | $\begin{array}{r} 15.9 \% \\ (279) \end{array}$ | $\begin{array}{r} 22.8 \% \\ (400) \end{array}$ | $\begin{array}{r} 33.2 \% \\ (583) \end{array}$ | 1,757 |
|  |  |  |  |  | answere <br> skippe | question question | $\begin{aligned} & 1,765 \\ & 274 \end{aligned}$ |
| 36. Did you meet with other students to study or complete homeworknotside ${ }^{\text {af }}$ classtion |  |  |  |  |  | 1,765 |  |
|  |  |  | skipped question |  |  | 274 |  |

36. Did you meet with other students to study or complete homework outside of class?

|  | Response <br> Percent | Response <br> Count |
| :--- | ---: | ---: |
| Yes | $67.3 \%$ | $\mathbf{1 , 1 8 8}$ |
| No | $32.7 \%$ | 577 |
|  | answered question | 1,765 |
|  | skipped question | $\mathbf{2 7 4}$ |

37. Did you belong to a calculus study group organized by your instructor or department?

|  | Response <br> Percent | Response <br> Count |
| :---: | ---: | ---: |
| Yes | $9.1 \%$ | 160 |
| No | $90.9 \%$ | 1,605 |
|  | answered question | 1,765 |
|  | skipped question | 274 |
|  |  |  |

PAGE:
38. Does your math department or university provide a walk-in tutor center for mathematics?

| Response Percent | Response Count |
| :---: | :---: |
| Yes 93.3\% | 1,645 |
| No 6.7\% | 118 |
| answered question | 1,763 |
| skipped question | 276 |
| 39. Approximately how many hours per week did you work at a job thaissifeepeqferestion | 1,769 |
| skipperqapensa Percent | Respqose Count |

39. Approximately how many hours per week did you work at a job this semester/term?

| 0 | $\mathbf{5 8 . 8 \%}$ | $\mathbf{1 , 0 4 0}$ |
| :--- | ---: | ---: |
| $\mathbf{1 - 5}$ | $10.2 \%$ | 181 |
| $\mathbf{6 - 1 0}$ | $9.8 \%$ | 174 |
| $\mathbf{1 1 - 1 5}$ | $6.0 \%$ | 106 |
| $\mathbf{1 6 - 2 0}$ | $3.7 \%$ | 66 |
| $\mathbf{2 1 - 3 0}$ | $2.9 \%$ | 51 |
| More than 30 | answered question | $\mathbf{1 , 7 6 9}$ |
|  | skipped question | $\mathbf{2 7 0}$ |

40. Approximately how many hours per week did you participate in organized extracurricular activities such as sports, college paper, or clubs?

|  | Response <br> Percent | Response <br> Count |
| :--- | ---: | ---: |
| $\mathbf{0}$ | $16.5 \%$ | 293 |
| $\mathbf{1 - 5}$ | $32.5 \%$ | 575 |
| $\mathbf{6 - 1 0}$ | $18.2 \%$ | 322 |
| $\mathbf{1 1 - 1 5}$ | $11.5 \%$ | 204 |
| $\mathbf{1 6 - 2 0}$ | $9.1 \%$ | 162 |
| $\mathbf{2 1 - 3 0}$ | $6.2 \%$ | 109 |
| More than 30 | answered question | $\mathbf{1 , 7 7 1}$ |

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41. Approximately how many hours per week did you spend preparing for all chasses (stydying, reaplifg ${ }^{\prime}$ writing, doing homework or lab work, analyzing data, or other academic activities) this semester/term?

|  | Response Percent | Response Count |
| :---: | :---: | :---: |
| 0 | 0.6\% | 11 |
| 1-5 | 10.1\% | 179 |
| 6-10 | 15.9\% | 281 |
| 11-15 | 21.5\% | 381 |
| 16-20 | 22.5\% | 398 |
| 21-30 | 17.5\% | 309 |
| More than 30 | 11.9\% | 211 |
|  | answered question skipped question | $\begin{aligned} & 1,770 \\ & 269 \end{aligned}$ |

42. Approximately how many hours per week did you spend preparing for calculus (studying, reading, doing homework or lab work) this semester/term?

|  | Response <br> Percent | Response <br> Count |
| :--- | ---: | ---: |
| $\mathbf{0}$ | $2.8 \%$ | 50 |
| $\mathbf{1 - 5}$ | $\mathbf{6 0 . 0 \%}$ | 1,062 |
| $\mathbf{6 - 1 0}$ | $26.5 \%$ | 469 |
| $\mathbf{1 1 - 1 5}$ | $7.2 \%$ | 128 |
| $\mathbf{1 6 - 2 0}$ | $2.1 \%$ | 38 |
| $\mathbf{2 1 - 3 0}$ | $0.7 \%$ | 13 |
| More than 30 | $0.6 \%$ | 10 |
|  | answered question | $\mathbf{1 , 7 7 0}$ |

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43. What is your home zip code at the time you graduated from high school? If you graduated from a high school outside the U.S., enter 00000

|  | Response <br> Count |  |
| :---: | :---: | :---: |
|  | Show replies | 1,781 |
| answered question | 1,781 |  |
|  | skipped question | 258 |

44. What is your birth date?

|  | Response <br> Percent | Response <br> Count |
| :--- | ---: | ---: |
| Enter numbers as indicated -> <br> Show replies | $100.0 \%$ | 1,781 |
|  | answered question | 1,781 |
|  | skipped question | 258 |

45. Your email address:

|  | Response <br> Count |
| ---: | ---: | ---: |
| Show replies | 584 |
| answered question | 584 |
| skipped question | $\mathbf{1 , 4 5 5}$ |

46. Is there anything else you want to tell us about your experience in Calculus I?

|  | Response <br> Count |
| :--- | ---: |
| show replies | 360 |
| answered question | 360 |
| skipped question | 1,679 |

