

Instructions: Show all work to receive full credit. You should note any formulas used or calculator functions used, their inputs and outputs. I cannot grade work if I don't know where an answer came from. Be sure complete all parts of each questions, including requests for interpretation and explanations. Be as thorough as possible.

1. Evaluate $\frac{|-2x+1|}{\sqrt{|x-y|+1}}$ for $x = 1, y = 4$. Reduce completely.

$$\frac{|-2(1)+1|}{\sqrt{|1-4|+1}} = \frac{|-2+1|}{\sqrt{|-3|+1}} = \frac{|-1|}{\sqrt{3+1}} = \frac{1}{\sqrt{4}} = \boxed{\frac{1}{2}}$$

2. Based on the two-way table below, what is the number of people who have neither a job title nor a phone.

	Job Title not present	Job Title present	Total
Business Phone not present	2,240	931	3,171
Business Phone present	386	1,443	1,829
Total	2,626	2,374	5,000

2,240

3. The table above lists the favourite summertime activities of 24 10-year-olds. Construct a frequency table and relative frequency table for this data. (You can use the back of the page.)

Ballet	Track	Baseball/Softball	Basketball	Swimming	Ballet
Ballet	Swimming	Basketball	Track	Swimming	Swimming
Cycling	Baseball/Softball	Swimming	Soccer	Soccer	Soccer
Basketball	Swimming	Swimming	Track	Baseball/Softball	Soccer

Sport	Tally	Frequencies	Relative Frequency
Ballet		3	$\frac{3}{24} = 12.5\%$
Track		3	12.5%
B/S		3	12.5%
Basketball		3	12.5%
Swimming		7	$\frac{7}{24} = 29.2\%$
Cycling		1	$\frac{1}{24} = 4.2\%$
Soccer		4	$\frac{4}{24} = 16.7\%$