Percentile Worksheet

1. Determine whether the following statements are true or false.

a) The higher the percentile rank of a score, the greater the percent of scores above that score.

b) A mark of 75% always has a percentile rank of 75.

c) A mark of 75% might have a percentile rank of 75.

d) It is possible to have a mark of 95% and a percentile rank of 40.

e) The higher the percentile rank, the better that score is compared to other scores.

f) A percentile rank of 80, indicates that 80% of the scores are above that score.

g) P50 is the median.

h) Two equal scores will have the same percentile rank.

2. The following is a set of 30 scores achieved by students on an exam:

18 23 33 38 38 38 42 51 55 56
57 63 65 66 68 68 68 68 76 80
81 82 85 89 92 93 93 95 97 100

Determine the percentile rank for each of the following scores. Remember to round all percentiles up to the next whole number.

    a) 18

_____

    b) 68

_____

3. A total of 700 individuals take a government employment exam. Carmela scores 618 out of 800 marks. There are 520 individuals who score less than 618 marks and no one else has a score of 618.

    a) Find Carmela's percent score

_____

    b) Find Carmela's percentile rank.

_____

    c) In order to get a job with the government an individual has be in the top 20% of people writing the exam. Will Carmela get a job? Explain.

4. Shana's final mark in her Grade 12 math class is 92%. Of the 28 students in her class, three received the same grade as Shana and 22 have lower marks.

     a) Find Shana's percentile rank.

                                                                     _____

     b) What percentage of students have a final mark higher than Shana?

                                                                      _____

5. The examination results of 4000 students are analyzed and the following percentiles are calculated:

                    P20 = 45   P50 = 61   P75 = 76   P90 = 89

a) Approximately what percentage of students has a score of 45 or less?

                                                                     _____

b) Approximately what percentage of students scored more than 76?

                                                                       _____

c) Approximately what percentage of students have scored between 45 and 89?

                                                                      _____

d) Approximately how many students scored more than 76?

                                                                       _____

e) What is the median mark for this exam?

                                                                      _____

6. Ben has a final overall Grade 12 average of 87%. The college he wants to attend will not consider any applicant with a percentile rank below 82. Can Ben be sure the college will consider his application? Explain.

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