

Skill # _____

Name _____

(Skill title)

Skill Description: _____

Example # ____ (Show HOW)

Process for Example # ____ (Say WHAT you did and WHY you did it!)

Instructions on Formatting Your Portfolio

This format of the portfolio is always the same. It includes the following items:

- **Cover and table of contents**
- **Cover Letter** – Summarize what you learned during the year and identify what was new knowledge, what was review material, and what questions remain.
- **Skill descriptions** – For each teacher-identified skill objective, write a step-by-step description of how to “do” the skill and provide worked examples and an explanation of when and where to apply the skill.
- **Reflection** – Reflect on your classroom participation, behavior, and quality of work during the last semester and identify specific areas for improvement.

How to Write a Skill Description

Skill descriptions are records of your mastery of the skill. The five parts to write are described below.

1. Skill Title.

A title gives you a short way to remember what the skill is in a few words.

2. Skill Description

This is a one to three sentence description of what the skill is and what it is good for. This description should be short enough that you can reread it quickly and decide if you could make use of the skill to solve a problem that you are working on.

3. Examples

Use one or two challenging and relevant examples.

4. Application

You need to explain how, if you were looking at a word problem, you would know that this skill could help you solve the problem.

5. Description of the process

Describe the process in a list (step 1, step 2, etc.) or in paragraph form. Be sure to explain the purpose of each step, such as, “I did this step because at this point I needed to isolate x and the way to do that was to ...”

The Skill Objectives within Statistics and Trigonometry are listed below.

Exploring Data

- Using a variety of graphical techniques to display a distribution. (bar graphs, pie charts, stemplots, histograms, and boxplots. * (1), (2)
- Interpret graphical displays in terms of the shape, center, and spread of a distribution, as well as gaps and outliers. * (3), (4)
- Use a variety of numerical techniques to describe a distribution. These should include mean, median, quartiles, five-number summary, interquartile range, standard deviation, range, and variance. * (5), (6)
- Interpret numerical measures in the context of the situation in which they occur. *(7)
- Learn to identify outliers in a data set. * (8)

Normal Distributions

- Be able to compute measures of relative standing for individual values in a distribution. This includes standardized values and percentiles. *(9), (10)
- Demonstrate an understanding of the Normal Distribution and the 68-95-99.7 Rule. *(11)
- Use tables and technology to find the proportion of values on an interval of the Normal Distribution and a value with a given proportion of observations above or below it. *(12), (13)

Examining Relationships

- Construct and interpret a scatterplot for a set of bivariate data. * (14)
- Compute and interpret the correlation r between two variables. * (15)
- Demonstrate an understanding of the basic properties of the correlation r .
- Explain the meaning of a least squares regression line.
- Given a bivariate set of data, construct and interpret a regression line. * (16)
- Demonstrate an understanding of how one measures the quality of a regression line as a model for bivariate data.

Basic Trigonometry/ Unit Circle

- Calculate trig ratios and use them to calculate sides and angles of right triangles. * (17)
- Use the law of cosines and sines to find missing angle and sides of triangles. * (18)
- Draw the unit circle
- Use Special Triangles to find trig values
- Find exact trig values * (19)

Graphing Trig Functions

- Graphing the six trig functions
- Graphing sinusoids * (20), (21)
- Solve trig equations * (22)
- Using graphs with real world problems *(23)

The numbered items with asterisks are to have Skill Descriptions written about them and are to be included in your portfolio in the order given.