### Lesson 1 Practice Problems

1. Lin is interested in how many of her classmates watch her favorite TV show, so she starts asking around at lunch. She gets the following responses:

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| * yes | * yes | * yes | * no | * no | * no | * no | * no |
| * no | * no | * yes | * no | * no | * no |  |  |

* If she asks one more person randomly in the cafeteria, do you think they will say “yes” or “no”? Explain your reasoning.

1. An engineer tests the strength of a new material by seeing how much weight it can hold before breaking. Previous tests have held these weights in pounds:

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| * 1,200 | * 1,400 | * 1,300 | * 1,500 | * 950 | * 1,600 | * 1,100 |

* Do you think that this material will be able to hold more than 1,000 pounds in the next test? Explain your reasoning.

1. A company tests two new products to make sure they last for more than a year.
   * Product 1 had 950 out of 1,000 test items last for more than a year.
   * Product 2 had 150 out of 200 last for more than a year.

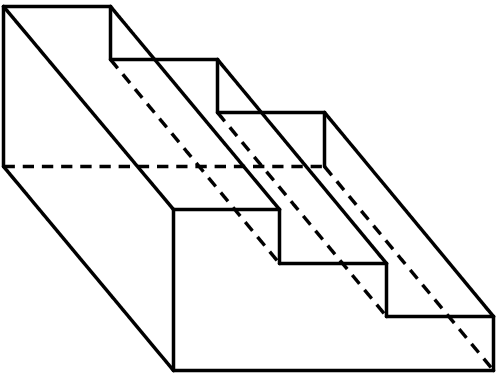
* If you had to choose one of these two products to use for more than a year, which one is more likely to last? Explain your reasoning.

1. Put these numbers in order from least to greatest.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  |  | * 0.6 | * 0.3 |



1. A small staircase is made so that the horizontal piece of each step is 10 inches long and 25 inches wide. Each step is 5 inches above the previous one. What is the surface area of this staircase?

* 
* (From Unit 7, Lesson 15.)



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