## READY, SET, GO! Name Period Date

## READY

Topic: Filling in two-way tables

The data below is the data from Mrs. Hender's class. Students needed to score $\mathbf{6 0 \%}$ or better to pass the test.

| $1^{\text {st }}$ hour: | $2^{\text {nd }}$ hour: | $3^{\text {rd }}$ hour: |
| :--- | :--- | :--- |
| $72,83,56,63,89,92,92,67$, | $80,83,81,81,67,90,70,71$, | $51,45,67,83,99,100,94,52$, |
| $88,84,67,97,96,100,84,82$ | $72,77,81,85,86,77,74,51$ | $48,46,100,59,65,56,72,63$ |

1. Make a two-way frequency table showing how many students passed the test and how many failed each class.

|  | $1^{\text {st }}$ | 2nd | 3rd | Total |
| :--- | :--- | :--- | :--- | :--- |
| Passed |  |  |  |  |
| Failed |  |  |  |  |
|  |  |  |  |  |

2. What percent of students passed Mrs. Hender's test in each class?

What is the total percent of all classes that passed?
3. Combine the data from all three classes to create a histogram using technology. Sketch your histogram below. What features of the Normal curve does your histogram have?
4. If Mrs. Hender's were going to predict her total pass rate using only $2^{\text {nd }}$ hour, would she make an accurate prediction? Explain why or why not.

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SET
Topic: Using features of the normal curve to rank data
5. Five track athletes are in the running for the Athletic Performance of the Year award. A panel of coaches is trying to decide which athlete is the most deserving to win the award. Rank each athlete below by the given information. Assume all distributions follow a Normal Curve.
a. Javier threw the Javelin 215 ft . The average Javelin throw is 152.08 ft . with a standard deviation of 15.85 ft .
b. Chance ran a 400 m time of 46.99 seconds. The average 400 m time was 52.6 , with a standard deviation of 1.01 seconds.
c. Derick ran a 36.26 in the 300 m Hurdles. The average time was 41.77 with a standard deviation of 1.49 seconds.
d. Chad ran a 100 m time of 10.59 seconds. The average time was 11.603 seconds with a standard deviation of 29 seconds.
e. Kayden threw the discus 180 ft . The average throw was 122.4 ft . with a standard deviation of 14.38 ft .

## GO

Topic: Solving logarithmic equations
Solve each equation below for x by applying properties for exponents and logarithms.
6. $\quad 2^{x-5}=128$
7. $\left(\frac{1}{243}\right)^{x}=27$
8. $3^{x+2}=27^{x-3}$
9. $\log (2 x+4)-\log (3 x)=0$
10. $\log _{2}\left(2 x^{2}+4 x-2\right)-\log _{2} 10=0$
11. $\frac{\ln (x+7)}{\ln (2 x-3)}=1$
12. $\frac{\log (4 x+2)}{\log 15}=1$
13. $\frac{\log _{3}(3 x+6)}{\log _{3} 81}=1$

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