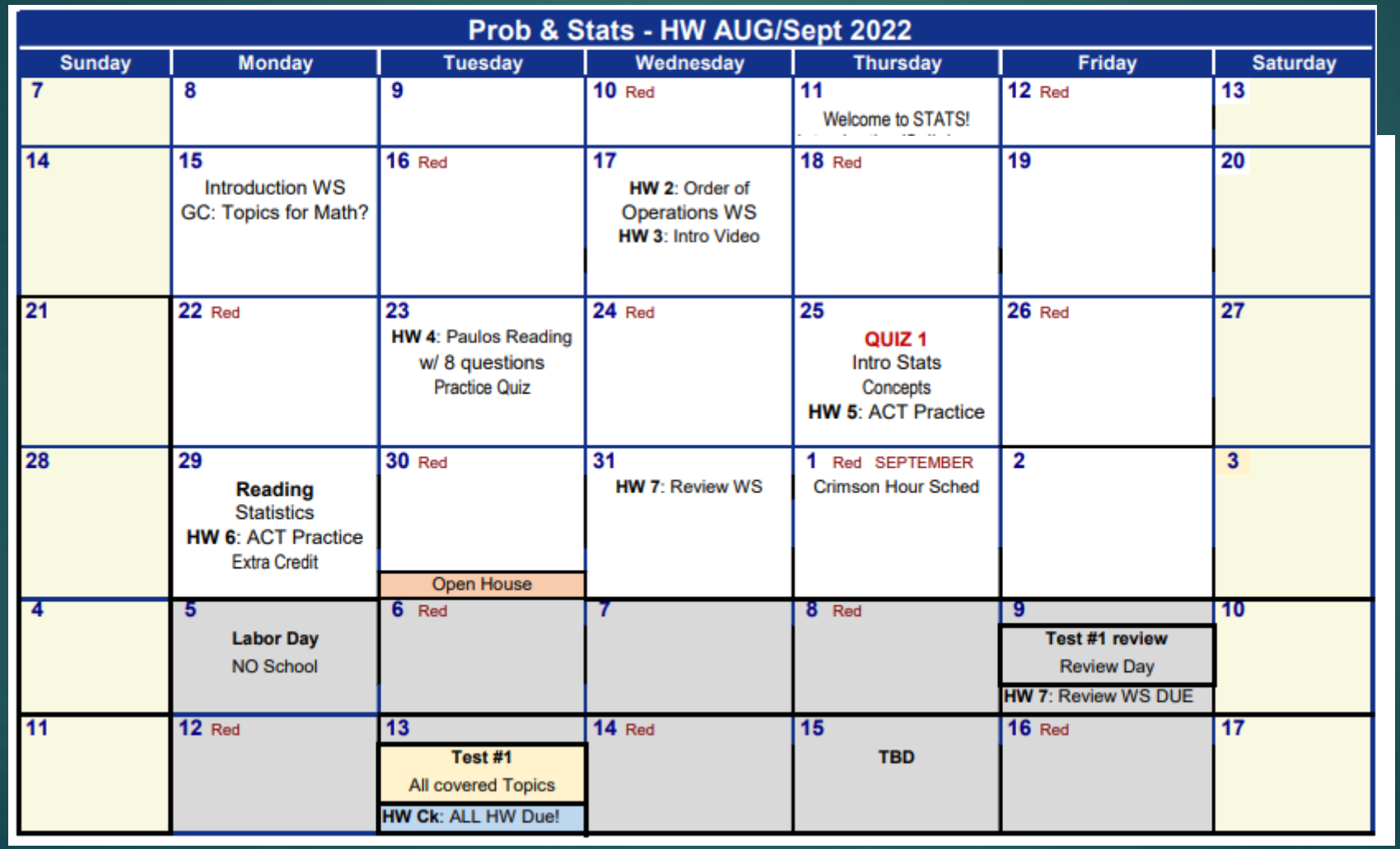
# Calendar Review



**Prob & Stats - HW AUG/Sept 2022**

| Sunday | Monday | Tuesday | Wednesday | Thursday | Friday | Saturday |
|---|---|---|---|---|---|---|
| 7 | 8 | 9 | 10 Red | 11<br>Welcome to STATS! | 12 Red | 13 |
| 14 | 15<br>Introduction WS<br>GC: Topics for Math? | 16 Red | 17<br>**HW 2**: Order of Operations WS<br>**HW 3**: Intro Video | 18 Red | 19 | 20 |
| 21 | 22 Red | 23<br>**HW 4**: Paulos Reading w/ 8 questions<br>Practice Quiz | 24 Red | 25<br>**QUIZ 1**<br>Intro Stats Concepts<br>**HW 5**: ACT Practice | 26 Red | 27 |
| 28 | 29<br>**Reading**<br>Statistics<br>**HW 6**: ACT Practice<br>Extra Credit | 30 Red<br>Open House | 31<br>**HW 7**: Review WS | 1 Red SEPTEMBER<br>Crimson Hour Sched | 2 | 3 |
| 4 | 5<br>**Labor Day**<br>NO School | 6 Red | 7 | 8 Red | 9<br>**Test #1 review**<br>Review Day<br>**HW 7**: Review WS DUE | 10 |
| 11 | 12 Red | 13<br>**Test #1**<br>All covered Topics<br>**HW Ck**: ALL HW Due! | 14 Red | 15<br>**TBD** | 16 Red | 17 |

# Warm-UP & ACT Practice
# Take out WS from last class

- Spend 5 minutes working on problems
- Circle 1 or 2 problems that are most difficult or confusing
- Be ready to share and discuss your answers and work
- What is a proportion? How do you solve for the percent of a number?

# Understanding Percentages

HOW DO YOU FIND THE GIVEN PERCENT OF ANY NUMBER?

# What are percents?

- Percent means "per 100" or "out of one-hundred"
- Any percent can be converted into an equivalent decimal form simply by **Dividing the % by 100**
- Any number (including decimals) can be converted into an equivalent percent by Multiplying the number **by 100**
- You can find any percent of a given quantity by using a simple formula, that results from a P**…PROPORTIONS**

# What are proportions?

- A proportion is an equation that shows one ratio equal to another, usually displayed as one fraction set equal to another fraction
- EX: $\frac{1}{2} = \frac{3}{6}$ $\frac{5}{20} = \frac{x}{80}$ $\frac{a}{b} = \frac{c}{d}$
- We commonly use proportions to find equivalent fractions or to solve percent problems

# Using a **general proportion** to solve *percentage problems*

- Different Forms of the Percent Proportion

$$\frac{percent}{100} = \frac{amount}{base}$$

$$\frac{P}{100} = \frac{"is"}{"of"}$$

$$\frac{\%}{100} = \frac{part}{whole}$$

$$\frac{percent\ you\ want}{out\ of\ 100} = \frac{resulting\ part}{of\ given\ quantity}$$

# What is 42.6% of 100?

$$\frac{\%}{100} = \frac{part}{whole}$$

$$\frac{42.6}{100} = \frac{x}{100}$$

$$\frac{42.6}{100} = \frac{well\ duh!}{100}$$

Ans: $x = 42.6$

# What is 27% of 64?

$$\frac{\%}{100} = \frac{part}{whole}$$

$$\frac{27}{100} = \frac{x}{64}$$

$$0.27 = \frac{x}{64}$$

$$x = 0.27(64)$$

Ans: $x = \mathbf{17.28}$

# 40 is *what percent* of 64?

$$\frac{\%}{100} = \frac{part}{whole}$$

$$\frac{p}{100} = \frac{40}{64}$$

$$0.625 = \frac{p}{100}$$

$$p = 0.625(100)$$

$$p = 62.5\%$$

# 59 is *what percent* of 190?

$$\frac{\%}{100} = \frac{part}{whole}$$

$$\frac{p}{100} = \frac{59}{190}$$

$$0.3105263\ldots \approx \frac{p}{100}$$

This symbol $\approx$ *means "approximately"*

$$p \approx 0.3105(100)$$

Ans: $p \approx 31.05\%$

# 49 is *55 percent* of what number?

$$\frac{\%}{100} = \frac{part}{whole}$$

$$\frac{55}{100} = \frac{49}{n}$$

$$55n = 4900$$

$$n \approx \frac{4900}{55}$$

This symbol $\approx$ *means "approximately"*

Ans: $n \approx 89.091$

# Practice Time

- Practice as many or few of the 100 WS problems, knowing that **you** **are responsible to be able to solve any of these percentage problems** on the upcoming test!