1. Use the bar graph below and determine whether a child aged 3-17 years with emotional, behavioral, or developmental conditions have more than one of the conditions listed? How do you know?

Prevalence of Learning Disabilities among Children Aged 3-17 Years with Emotional, Behavioral, or Developmental Conditions

- Developmental Delay: 82.9%
- Autism Spectrum Disorder: 76.0%
- ODD/Conduct Disorder: 48.1%
- ADD/ADHD: 47.6%
- Tourette Syndrome: 44.4%
- Anxiety: 42.1%
- Depression: 41.2%

Percent of Children

2. If Poland had a population of 34,849,000 before World War II, how many people survived World War II?

% of Population Killed in World War II

- Poland: 0.94%
- Soviet Union: 0.32%
- China: 18.51%
- Japan: 13.47%
- Germany: 10.77%
- Great Britain: 3.75%
- United States: 3.86%
3. Use the graph below to answer questions 3a, 3b and 3c.

![Voter Turnout in Presidential and Midterm Elections](image)

**Voter Turnout in Presidential and Midterm Elections**

- **Election Year**
  - [Presidential Elections](#)
  - [Midterm Elections](#)

a. Is there a particular year that sticks out to you? Is there a potential historical reference to that year?
b. What generalizations can you make about voter turnouts, in particular to address the shifts after 1836?
c. After about 1880, midterm and presidential election have about the same gap until the end of the sample. Any historical/political explanation for this?

4a. Does the histogram below labeled "Inauguration Age of Presidents" resemble anything from statistics you may have studied?

![Inauguration Age of Presidents](image)

**Inauguration Age of Presidents**

- **Frequency**
- **Age (in years)**
  - 40
  - 45
  - 50
  - 55
  - 60
  - 65
  - 70

4b. According to this histogram, what is the approximate average age of our Presidents at inauguration?
5. Use the figure below to answer questions 5a and 5b.

![Graph showing rate of diagnosis of first episode of depression per 1000 patient years by age in female patients]

**Fig 3** | Rate of diagnosis of first episode of depression per 1000 patient years by age in female patients

a. What seems to be the age range where females are most likely to have a diagnosed episode of depression?

b. Is there anything interesting to note about the trends of the four age ranges?

6. According to the chart below, what year saw largest percentage of WWII veterans die?

![Chart showing surviving WWII veterans]

**Surviving WWII Veterans**

- 16 Million Americans Served in WWII
- 555 Veterans Die Each Day
- 1,034,727 Veterans Today
7. Use the circle graph below to answer questions 7a and 7b.

**Average Individual Expenditure on Recreation in 1986**
(assume a $2000 annual budget)

- Toys, sport supplies, and equipment: 25%
- Radio and TV receivers, records: 22%
- Spectator and commercial amusements: 14%
- Books, magazines, and newspapers: 11%
- Other

**U.S. Census Bureau**

a. How much money is left over after the money for spectator and commercial amusements and toys, sport supplies, and equipment is spent?

b. How much is spent weekly on books, magazines, and newspapers is the same amount is spent on recreation every week? If the annual budget increases to $4000, how does the answer change?

8. Use the histogram below to answer questions 8a, 8b, and 8c.

**Histogram of tenants living in an apartment building.**
# of tenants on y-axis, age on x-axis.

- Age intervals: 0-15, 15-30, 30-45, 45-60, 60-75, 75-90
- Number of tenants: 0, 1, 2, 3, 4, 5, 6, 7, 8, 9

a. What is the width of each age interval? What does this interval represent?

b. How many tenants live in this building?

c. How many tenants are younger than 30 but older than 75?
9. Use the double-bar graph below to answer questions 9a and 9b.

Students who have worked and not worked between the ages of 14 and 18.

<table>
<thead>
<tr>
<th>Ages</th>
<th>Worked</th>
<th>Did Not</th>
</tr>
</thead>
<tbody>
<tr>
<td>14</td>
<td>25</td>
<td>5</td>
</tr>
<tr>
<td>15</td>
<td>20</td>
<td>10</td>
</tr>
<tr>
<td>16</td>
<td>15</td>
<td>5</td>
</tr>
<tr>
<td>17</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>18</td>
<td>5</td>
<td>5</td>
</tr>
</tbody>
</table>

a. Compare the ratio of students who worked vs did not when the students were 16 vs when they were 17. What might account for the different ratio?

b. How many total students are surveyed for each age group?
Tables, Charts, & Graphs.

1. Yes they can have more than one of the conditions listed, according to this bar graph. You know this by if one adds up all of the percentages presented, the total is more than 100% implying a child can have more than one condition.

2. Poland had 34,849,000 people total.
   60% of pop. killed: 18,510,600

   34,849,000 (0.60) = 20,945,000
   34,849,000 - 20,945,000 = 13,904,000
   people survived

3. A. Approx. 1823 → Monroe Doctrine
   B. Presidential turnouts were higher in voter outcome.
      although midterms were high as well (VARYING POSSIBLE ANSWERS)
   C. The 2nd Industrial Revolution (1880)
      The 1st Beer War (1881)
      Congress passes the 1882 Immigration Act (1882)

4. A. Bell Curve / Normal Distribution
   B. $2 + 7 + 13 + 12 + 7 + 3 = 44$
      $\frac{1}{2} + \frac{1}{3} + \frac{1}{4} + \frac{1}{5} + \frac{1}{6} = \frac{44}{6}$
      Age: 50-60

5. A. Age 18-30 years
   B. As the years progressed, the rate of diagnosis per 1000 patients (in years) has been decreasing.
      [since 2001-2003 among ages: 18-30 31-64 65+
      C 18-30 25 31-64
      3 65+]
7 (a) \[ 14 \times 1 + 25 \times 1 = 39 \times 1 \]

\[ \text{Total} \quad 2000 \]
\[ - \quad 780 \]
\[ \underline{1220} \]

(b) Books, mags, n/p's: 1100.

\[ 52 \text{ weeks/year} \rightarrow \$12000 \]
\[ \frac{52 \text{ weeks/year}}{\text{year}} = \$38 \text{ week on recreation} \]

\[ \$38.00 \times 1.11 = \$42.23 \]

spent weekly on books, mags, n/p's

If the annual budget increases to \$4000

then, \[ \frac{4000}{52} = \$76.92 \]

spent a year on recreation.

So, \[ \$76.92 \times 1.11 = \$84.60 \]

(The 1st answer doubles, since the years budget doubled)

8 (a) 15 yrs (b) \[ 5 + 3 + 7 + 4 + 5 + 9 = 33 \text{ tenants} \]

(c) Younger than 30 yrs, but older than 75: \[ 5 + 3 + 9 = 17 \]

9 (a) Being able to drive at 17 instead of 16 years old.

(b) Age 14, 15, 16, 17, 18
\[ \rightarrow 25, 25, 25, 25 \rightarrow 25(5) = \frac{125}{\text{total}} \]