Below are the formulas you may find useful as you work the problems. However, some of the formulas may not be used. You may refer to this page as you take the test.

### Area
- **Rectangle and Parallelogram** \( A = bh \)
- **Triangle** \( A = \frac{1}{2}bh \)
- **Circle** \( A = \pi r^2 \)
- **Trapezoid** \( A = \frac{1}{2}(h)(b_1 + b_2) \)

### Circumference
- \( C = \pi d \) \( \pi \approx 3.14 \)

### Volume
- **Rectangular Prism/Cylinder** \( V = Bh \)
- **Pyramid/Cone** \( V = \frac{1}{3}Bh \)
- **Sphere** \( V = \frac{4}{3}\pi r^3 \)

### Surface Area
- **Rectangular Prism** \( SA = 2lw + 2wh + 2lh \)
- **Cylinder** \( SA = 2\pi r^2 + 2\pi rh \)

### Pythagorean Theorem
- \( a^2 + b^2 = c^2 \)

### Mean Absolute Deviation
- \( \frac{\sum_{i=1}^{n} |x_i - \bar{x}|}{n} \)
  - the average of the absolute deviations from the mean for a set of data

### Distance Formula
- \( d = \sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2} \)

### Slope Formula
- \( m = \frac{y_2 - y_1}{x_2 - x_1} \)

### Midpoint Formula
- \( M = \left( \frac{x_1 + x_2}{2}, \frac{y_1 + y_2}{2} \right) \)

### Interquartile Range
- the difference between the first quartile and third quartile of a set of data