

STAAR GRADE 7 MATHEMATICS REFERENCE MATERIALS



Inches

LINEAR EQUATIONS

Slope-intercept form

$$y = mx + b$$

Constant of proportionality

$$k = \frac{y}{x}$$

CIRCUMFERENCE

Circle

$$C = 2\pi r$$

or

$$C = \pi d$$

AREA

Triangle

$$A = \frac{1}{2}bh$$

Rectangle or parallelogram

$$A = bh$$

Trapezoid

$$A = \frac{1}{2}(b_1 + b_2)h$$

Circle

$$A = \pi r^2$$

VOLUME

Prism

$$V = Bh$$

Pyramid

$$V = \frac{1}{3}Bh$$

ADDITIONAL INFORMATION

Pi

$$\pi \approx 3.14$$

or

$$\pi \approx \frac{22}{7}$$

Distance

$$d = rt$$

Simple interest

$$I = Prt$$

Compound interest

$$A = P(1 + r)^t$$

0

1

2

3

4

5

6

7

8

STAAR GRADE 7 MATHEMATICS REFERENCE MATERIALS

LENGTH

Customary

- 1 mile (mi) = 1,760 yards (yd)
- 1 yard (yd) = 3 feet (ft)
- 1 foot (ft) = 12 inches (in.)

Metric

- 1 kilometer (km) = 1,000 meters (m)
- 1 meter (m) = 100 centimeters (cm)
- 1 centimeter (cm) = 10 millimeters (mm)

VOLUME AND CAPACITY

Customary

- 1 gallon (gal) = 4 quarts (qt)
- 1 quart (qt) = 2 pints (pt)
- 1 pint (pt) = 2 cups (c)
- 1 cup (c) = 8 fluid ounces (fl oz)

Metric

- 1 liter (L) = 1,000 milliliters (mL)

WEIGHT AND MASS

Customary

- 1 ton (T) = 2,000 pounds (lb)
- 1 pound (lb) = 16 ounces (oz)

Metric

- 1 kilogram (kg) = 1,000 grams (g)
- 1 gram (g) = 1,000 milligrams (mg)

