Grade 5 FAST Math Reference Sheet

Decimal operations

Equivalent decimals	**3.4 = 3.40 = 3.400**
Add	**4.6 + 0.35 = 4.95**
Multiply	**1.2 × 0.3 = 0.36**

Line up decimal points for addition and subtraction.
Estimate first to check the decimal point in a product.

Fraction operations

Unlike denominators	**½ + ¼ = ¾**
Multiply	**(2/3) × (3/5) = 2/5**
Divide a unit fraction	**¼ ÷ 3 = 1/12**
Divide by a unit fraction	**3 ÷ ¼ = 12**

For addition and subtraction, rename fractions to a common denominator first.

Rectangle perimeter and area

Distance around	**P = 2(L + w)**
Space inside	**A = L × w**
Example: 7 by 4	**P = 22 units; A = 28 units^2**

L is the length and w is the width.
Perimeter uses length units. Area uses square units.

Rectangular prism volume

Length by width by height	**V = Lwh**
Base area by height	**V = Bh**
Example: 5 by 3 by 2	**V = 30 units^3**

B is the area of one base. Volume counts cubic units.

Metric conversions

Length	**1 m = 100 cm = 1,000 mm**
Distance	**1 km = 1,000 m**
Capacity	**1 L = 1,000 mL**
Mass	**1 kg = 1,000 g; 1 g = 1,000 mg**

Use 100 centimeters per meter to change 2.4 m into 240 cm.

US customary length

Feet and inches	**1 ft = 12 in**
Yards and feet	**1 yd = 3 ft**
Miles and feet	**1 mi = 5,280 ft**

Multiply when counting smaller units. For example, 4 yd = 12 ft.

US capacity and weight

Cups and pints	**1 pt = 2 cups**
Pints and quarts	**1 qt = 2 pt**
Quarts and gallons	**1 gal = 4 qt**
Weight	**1 lb = 16 oz**

Example: 2 gallons is 8 quarts. Fluid ounces measure capacity; ounces can measure weight.

Time conversions

Minutes and seconds	**1 min = 60 s**
Hours and minutes	**1 hr = 60 min**
Days and hours	**1 day = 24 hr**
Weeks and days	**1 week = 7 days**

Example: 2 hr 15 min = 2 × 60 + 15 = 135 min.