Grade 4 FAST Math Reference Sheet

Whole-number place value

Expanded form	**4,307 = 4,000 + 300 + 7**
Round to the nearest 100	**4,368 rounds to 4,400**
Check with division	**45 = 7 × 6 + 3**

A digit in the next place to the left is worth ten times as much.
The remainder is smaller than the divisor.

Equivalent fractions

Multiply both parts	**2/3 = 4/6**
Divide both parts	**8/12 = 2/3**
Tenths to hundredths	**7/10 = 70/100**

Use the same nonzero factor for numerator and denominator.
To compare, use a shared denominator or benchmark.

Working with like fractions

Add like units	**1/8 + 3/8 = 4/8**
Subtract like units	**7/10 − 2/10 = 5/10**
Repeat a fraction	**3 × 2/5 = 6/5**

When parts are the same size, add or subtract their counts and keep the denominator.

Rectangle perimeter and area

Distance around	**P = 2(L + w)**
Space inside	**A = L × w**
Example: 7 by 4	**P = 22 units; A = 28 units²**

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