## Expressions Using Numbers

## Fractions and Decimals

| $1 / 2$ | a/one half | $3 / 4$ | three quarters or three fourths |
| :--- | :--- | :--- | :--- |
| $1 / 3$ | a/one third | $9 / 10$ | nine tenths |
| $1 / 4$ | a/one quarter or a/one fourth | $2^{1 / 2}$ | two and a half |
|  | (for emphasis, use one instead of a) | $5^{2 / 3}$ | five and two thirds |
| $1 / 8$ | one eighth | 0.1 | (zero) point one |
| $1 / 12$ | one twelfth | 0.25 | (zero) point two five |
| $1 / 16$ | one sixteenth | 1.75 | one point seven five |
| $2 / 3$ | two thirds | 12.3 | twelve point three |
| One half of our income is spent on rent. |  |  |  |
| half a pound / half an hour / a mile and a half |  |  |  |
| More than two thirds of the voters are against new taxes. |  |  |  |
| He has a.325 (point three two five) batting average this season. |  |  |  |
| A normal body temperature is ninety-eight point six degrees. |  |  |  |

## Mathematical Expressions

| + | plus | $\neq$ | is not equal to | $\%$ |
| :--- | :--- | :--- | :--- | :--- |
|  | percent |  |  |  |
| - | minus | is approximately | $5^{2}$ | five squared |
| $\times$ times/multiplied by |  | equal to | $4^{3}$ | four cubed |
| $\div$ | divided by | $>$ | is greater than | $7^{10}$ |
|  | 7 to the tenth power |  |  |  |
| $=$ | equals/is | $<$ | is less than | $\sqrt{2}$ |

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8+9=17 eight plus nine equals (or is) seventeen
6\times4=24 six times four equals twenty-four or six multiplied by four is twenty-four
V4=2 the square root of four is two
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$90 \%$ (= ninety percent) of the students have a computer at home.

## Telephone Numbers

In telephone numbers, you say each number separately, often with a pause after the first three numbers.

0 is pronounced like "oh" /ov/:
> 731-5037 seven three one, five oh three seven
If you are calling a number in a different area or on a cell phone, you have to use the area code first:
> (212) 569-2236 two one two, five six nine, two two three six
Numbers containing 00 are pronounced like this:
> 1 (800) 555-1212 one eight hundred, five five five, one two one two
> 589-2300 five eight nine, two three hundred

## Temperature

The Fahrenheit ( ${ }^{\circ} \mathrm{F}$ ) scale is usually used to measure temperature in the U.S.:
$>$ Temperatures went up to over a hundred ( $=100^{\circ} \mathrm{F}$ ).
> You'll need a hat and gloves - it's three below ( $=-3^{\circ} \mathrm{F}$ ) outside today!
> She's sick in bed with a temperature of a hundred and two ( $=102^{\circ} \mathrm{F}$ ).
The Celsius or Centigrade $\left({ }^{\circ} \mathrm{C}\right)$ scale is used in scientific contexts:
> Water freezes at $0^{\circ} \mathrm{C}$ (= zero degrees Celsius) and boils at $100^{\circ} \mathrm{C}$ (= one hundred degrees Celsius).

## Money

| $1 \Phi$ | one cent | a penny |
| :--- | :--- | :--- |
| $5 \Phi$ | five cents | a nickel |
| $10 \Phi$ | ten cents | a dime |
| $25 \$$ | twenty-five cents | a quarter |
| $\$ 1.00$ | one dollar | a dollar bill |
| $\$ 20.00$ | twenty dollars | a twenty-dollar bill or a twenty |
| Is that all, sir? That will be $\$ 5.85$ (five eighty-five) plus tax. |  |  |
| Do you have change for a twenty? |  |  |
| I need some quarters for the parking meter. |  |  |

In informal speech, dollars are sometimes called bucks:
> This shirt cost fifty bucks.

## Dates

You can write dates in numbers, or in numbers and words:
> 4/15/11 (month/day/year)
April 15th, 2011 or April 15, 2011
You can say:
> April (the) fifteenth, two thousand and eleven or the fifteenth of April, two thousand and eleven
> She was born on May 4 (May fourth/the fourth of May).
> My passport expires in 2014 (two thousand and fourteen or twenty fourteen).
My grandmother died in 1989 (nineteen eighty-nine).
Are you available on the 23 rd (twenty-third) of June?
The play is on Thursday the 30th (thirtieth).

## Times

There is usually more than one way of saying times:

| 6:05 six o five | five after six | 11:30 eleven thirty | half past eleven |  |
| :--- | :--- | :--- | :--- | :--- |
| 8:10 eight ten | ten after eight | 9:45 | nine forty-five | (a) quarter to/of ten |
| 4:15 four fifteen | (a) quarter after four | 12:55 | twelve fifty-five five to/of one |  |

Use o'clock only for whole hours:
> It's three o'clock.
The 12 -hour clock is used in the U.S., so sometimes you need to specify the time of day:
> The meeting will begin at 8 p.m. sharp.
> We didn't get home till after 1 a.m.
My plane leaves at six in the morning/three in the afternoon.
She worked until six in the evening/eleven at night.

## Weights and Measures

|  | U.S. Standard System | Metric System |
| :--- | :--- | :--- |
| Weight |  |  |
|  | 1 ounce (oz.) | $=28.35$ grams $(\mathrm{g})$ |
| 16 ounces | $=1$ pound (lb.) | $=0.454$ kilogram $(\mathrm{kg})$ |
| 2,000 pounds | $=907$ kilograms |  |
| I weigh 195 pounds. |  |  |
| Their new baby weighs 7 pounds, 12 ounces.  <br> The truck weighs over four tons.  <br> We added six ounces of nuts to the cookies.  |  |  |

Length

|  | 1 inch (in.) <br> 12 inches <br> $=1$ foot (ft.) | $=2.54$ centimeters $(\mathrm{cm})$ |
| :--- | :--- | :--- |
| 3 feet | $=1$ yard (yd.) | $=30.48$ centimeters |
| 1,760 yards | $=1$ mile | $=0.9144$ meter $(\mathrm{m})$ |
| The bus stop is only 30 yards away from our house. |  |  |
| The frame is 5 inches by 7 inches. |  |  |
| There are 5,280 feet in one mile. |  |  |

## Area

|  | 1 square inch (sq. inch) <br> = | $=6.45$ square centimeters $\left(\mathrm{cm}^{2}\right)$ |
| :--- | :--- | :--- |
| 9 square foot (sq. foot) | $=929.03$ square centimeters |  |
| 9 square feet | $=1$ square yard (sq. yard) | $=0.836$ square meter $\left(\mathrm{m}^{2}\right)$ |
| 4,840 square yards | $=1$ acre | $=0.405$ hectare |
| 640 acres | $=1$ square mile | $=2.59$ square kilometers $\left(\mathrm{km}^{2}\right)$ |
|  |  | or 259 hectares |

> Our backyard measures 3,000 square feet.
> How many square inches are in a square yard?
> The farm has four acres of corn fields.

## Capacity

|  | 1 fluid ounce (fl. oz.) |  |
| :--- | :--- | :--- |
|  | $=29.573$ milliliters (ml) |  |
| 16 fluid ounces | $=1$ pint (pt.) | $=0.473$ liter (l) |
| 2 pints | $=1$ quart (qt.) | $=0.946$ liter |
| 4 quarts | $=1$ gallon (gal.) |  |
|  | 1 teaspoon (tsp.) | $=5.785$ liters |
| 1 tablespoon (tbsp.) | $=3$ teaspoons | $=15$ millililititers |
| 1 cup (c.) | $=8$ ounces | $=237$ milliliters |
| 2 cups | $=1$ pint | $=473$ milliliters |

> I need to buy a gallon of milk and some bananas.
> How many pints are there in a gallon?
> To make bread, you will need 4 cups of flour and 1 tablespoon of yeast.

