

# MEASUREMENTS & QUANTITIES

## PRAYER TIMES

### Introduction to Prayer Times/Zmanim

To calculate prayer times (zmanim), divide the total hours of daylight (from sunrise to sunset) by 12. This gives the local “hour” length, called halachic hour (sha'a zmanit).

### Individual Prayer Times

**Plag HaMincha**: 1 1/4 halachic hours before sunset until sunset.

**NOTE** Plag ha'mincha is usually calculated from sunrise to sunset. If necessary, an alternative calculation may be used from dawn to dark, which results in plag ha'mincha's being somewhat later.

**Mincha Gedola**: 1/2 hour after halachic midday until 2 1/2 halachic hours before sunset.

**Mincha Ketana**: 2 1/2 halachic hours before sunset until sunset.

**Tzeit HaKochavim**: 36 to 72 minutes after sunset, depending on the opinion, purpose, and geographical location.

## LENGTH/OBJECTS

### Length/Objects

1 Tefach = 4 fingers' width = 3 1/2" (8 cm) to 4" (10 cm)

Lavud = 3 Tefachim = 10 1/2" (27 cm) to 12" (30 cm)

1 Ama = 6 Tefachim = 21 1/4" (54 cm) to 24 1/2" (63 cm) (depending on the application)

10 Tefachim = 40" (1 m) (for Shabbat border)

## DISTANCE

### Distance

1 Mil = 0.7 miles (1.2 km) = 2000 amot

4 Milin = 1 parsa

1 Parsa = 4 mil = 2.8 miles (4.5 km)

Dalet Amot (4 cubits) = about 7 feet—minimum, 7 feet, 1 inch" (2.2 m); maximum, 8 feet (2.4 m)—but an entire dwelling may be considered your personal (halachic) dalet amot.

## VOLUME/SOLID

### Volume/Solid

#### K'Zayit

K'zayit is variously defined as being the volume of 1/3, 1/2, or 1 whole egg; 0.6 - 1.9 fl. oz. (18-56 ml), depending on the application.

**NOTE** For d'oraita requirements such as seder, we are stringent (machmir) and use the larger amount of 1.9 fl. oz. (56 ml). For d'rabanan rules, we are more lenient and use only 1.3 fl. oz. (39 ml, or 1/6 cup).

- K'zayit for Seder Matza and Afikoman: 1.9 fl. oz. (56 ml) of matza.

- K'zayit for Bracha Achrona and Birkat HaMazon: 1.3 fl. oz. (39 ml, or 1/6 cup) of solid food.

## Beitza, K'Beitza

Beitza, K'Beitza = 1.9 fl. oz. (56 ml); an egg size by definition.

**NOTE** For an etrog, which must be at least 1 egg volume, today we use a minimum of 2 egg volumes.

## VOLUME/LIQUID

### Volume/Liquid

1 Revi'it = Usually 3.3 fl. oz. (99 ml); but 4 fl. oz. (119 ml) for:

- Any food requiring bracha achrona.
- The four cups of wine at the seder.
- Kiddush for Shabbat and Jewish festival nights.

1 Log = Volume of 6 eggs = 4 Revi'ot (a revi'it is 1/4 of a log)

1 Kab = 4 Login

1 Se'ah = 6 Kabin

40 Se'ah = Volume equivalent to 3 cubes, 24 1/2" (61 cm) on each side; minimum requirement for mikva = about 192 gallons/750 liters

1 fl. oz. = 1.77 cu. inch (about the size of a golf ball)

## MONETARY VALUE

### Monetary Value

Shava Pruta: Value of a pruta coin; value of 1/2 a barley grain's volume in silver.

**NOTE** Shava pruta signifies the smallest usable amount of money. Since not much can be bought for 1 cent (or less!), a dime is about the value we should use as a minimum.