Legal Descriptions

Learning Objectives

Upon completion of this section you should:

- Explain the basic methods of legally describing real property.
- Discuss the necessity of obtaining and using a correct legal description.
- Demonstrate familiarity with different measurements and terminology used.
- Demonstrate proficiency in using the various land units and measurements. Metes and Bounds, Lot and Block or Plat of Survey method, Rectangular Survey System (Government survey system).

Legal Descriptions

It is essential that the boundaries of property be accurately described in writing, especially when it is transferred. Without a proper description of boundary lines buyers and sellers as well as neighbors can have legal disputes. The description of the boundaries of land is known as the **legal description**.

The Importance of a Legal Description

A legal description is one of the most important components of a real estate contract. Without the full legal description, contracts are voidable - meaning either party can cancel the contract. Please make note that the legal description of the property, is not the same as the street address.

There are three basic methods of describing land which are used to create legal descriptions:

- Metes and Bounds
- Government Survey
- Plat Map (aka Lot and Block Survey System)

Metes and Bounds

Metes and bounds is a system of describing land that originated in England. The system uses:

- Monuments, which can may be man-made objects (e.g. a survey marker, post, or road) or natural objects (e.g. lake, river, tree, or rock).
- Courses or directions from a compass reading (known as compass bearings)
- Distances

The description will start at a **point of beginning** around the boundary of the property, which is well defined (it usually makes reference to a monument, which is a concrete place to start). After the point of beginning is established, the course and distance is given; for example, “50 feet south.” The course and distance may be described with a monument as well. For instance, “50 feet along Puttom Creek and south until the center of Moses Creek.” The monument will take precedence over the course and the distance if there is a discrepancy.

The ending point of the description will always be back at the point of beginning. By doing so it closes the tract of land. Each description is a single sentence, that starts at the point of beginning and then walks you through the boundaries - each of which is separated by a comma in the sentence. Some sentences can get lengthy, so it might be helpful to picture yourself walking the perimeter of the land as the directions lead the way. An example description for a parcel of land that uses the metes and bounds method is as follows:

> *"Beginning with a corner at the intersection of two stone walls near a peach tree on the north side of Blotter Creek road two miles above the junction of Blotter and Jones Creeks, north for 150 feet to the end of the stone wall bordering the road, then northwest along a line to a large maple tree on the corner of the Dairy Feed, thence west 150 feet to the corner of a brick building owned by John Lore near a large fir tree, thence south to Blotter Creek road, thence down the side of the creek road to the starting point."*

Metes and bounds descriptions can have errors or conflicts as a result of an ambiguous description. The courts have a rank order for which parts of a description they deem most reliable. They are:

1. Natural Monuments
2. Artificial, manmade monuments
3. Adjoining tracts or boundaries
4. Courses (Directions, e.g. North, Northeast etc.)
5. Distances
6. Area

Government Survey

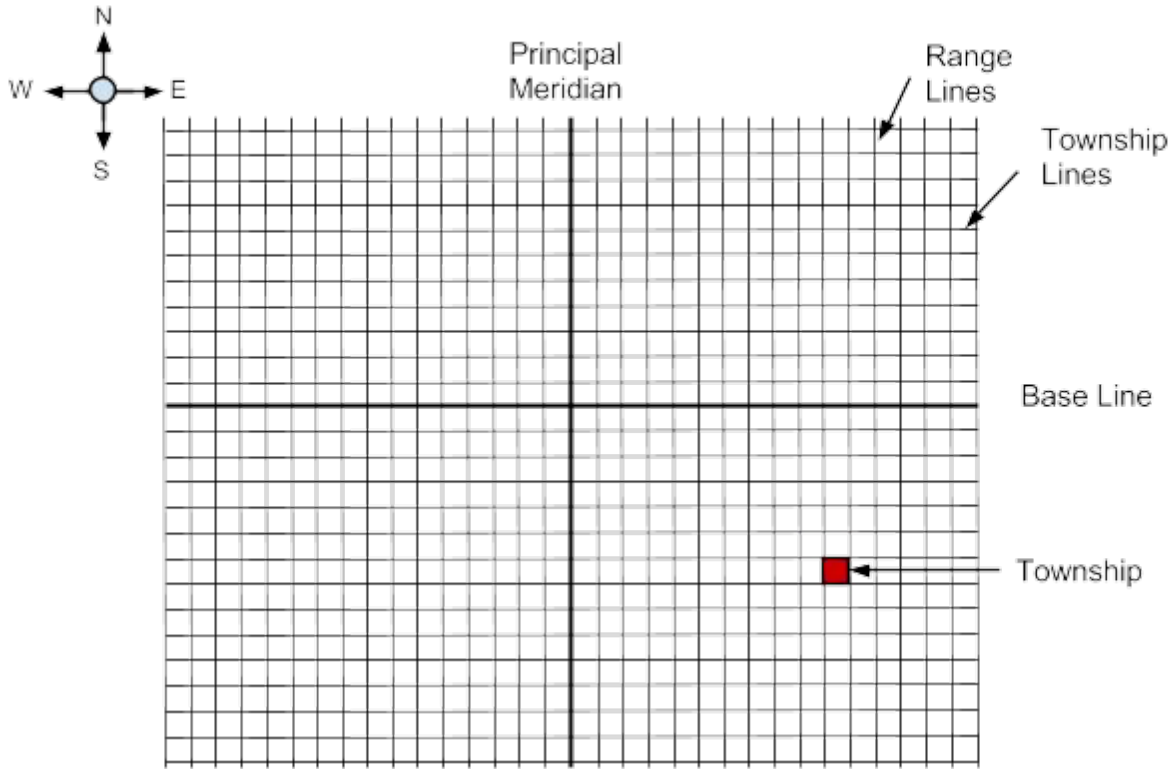
Also known as the **rectangular survey method**, the government survey system describes land through a series of grids.

The grids are made up of a set of lines:

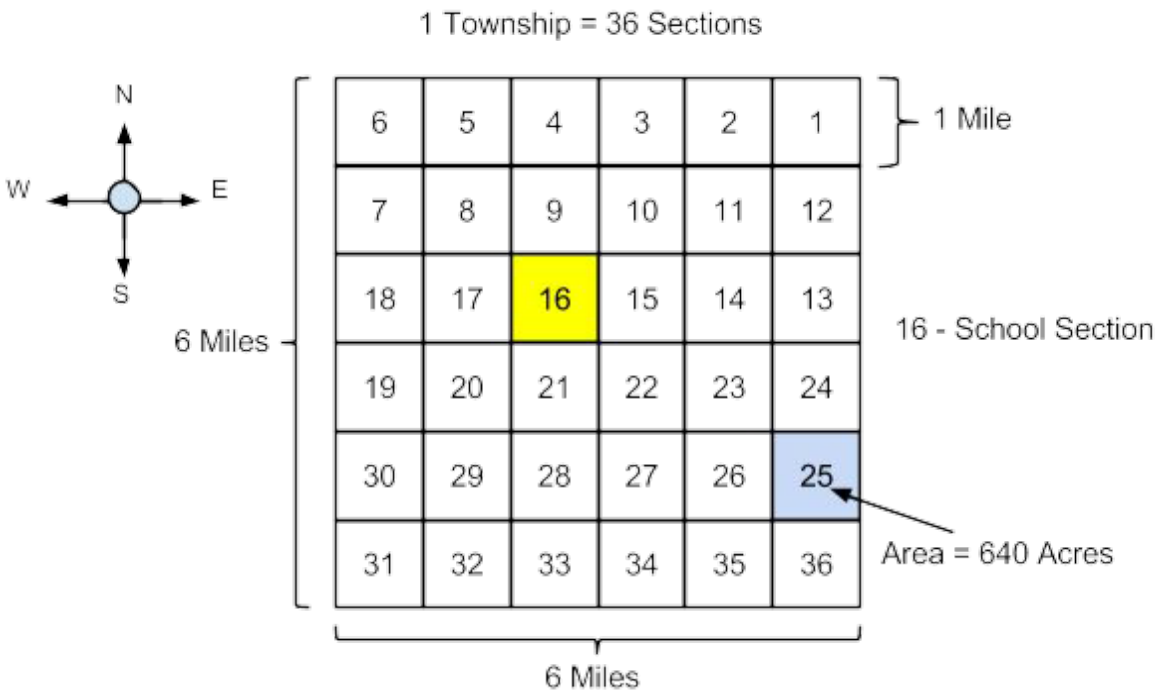
- The main line that runs north and south that looks like the Y-axis is called the **principal meridian.** Washington State has one principal meridian which is named the Willamette Meridian.
- The main line that is the east and west control line is called the **base line.** In math terms this would be the X-axis.

- Lines that run parallel to the base line (east and west) are placed every six miles, which are called **township lines**. These lines make the rows of the grid. Each six mile row running east-west is known as a **township tier**. Township tiers are divided further by lines running north and south.
- Lines that run parallel to the principal meridian (north and south) are placed every six miles and are called **range lines**. These lines make the columns of the grid.

The area of one of the 6 mile by 6 mile rectangles (totaling 36 square miles) is called a **township**.



As shown in the following diagram, each township is divided into 36 sections - each of which is 1-mile x 1-mile, or 1 square mile. Each section is assigned a number as shown, and the numbering always follows the same order; it starts in the northeast corner and counts left, and then right in a snake-like fashion. This numbering system allows readers to precisely identify any single square mile in a piece of land. And since there are many townships in any grid, it's noteworthy that the numbering of each township relate to each other consistently. For example, the section in the upper left (northwest) corner of the township below (section 6), will always be immediately right (east) of the section 1 in the township that borders this township to the left (west).



For review and quick reference, below are some conversions to remember:

Hierarchy

1 township = 6 miles by 6 miles (36 square miles)
1 township = 36 sections
1 section = 1 square mile or 640 acres

Units of measurement

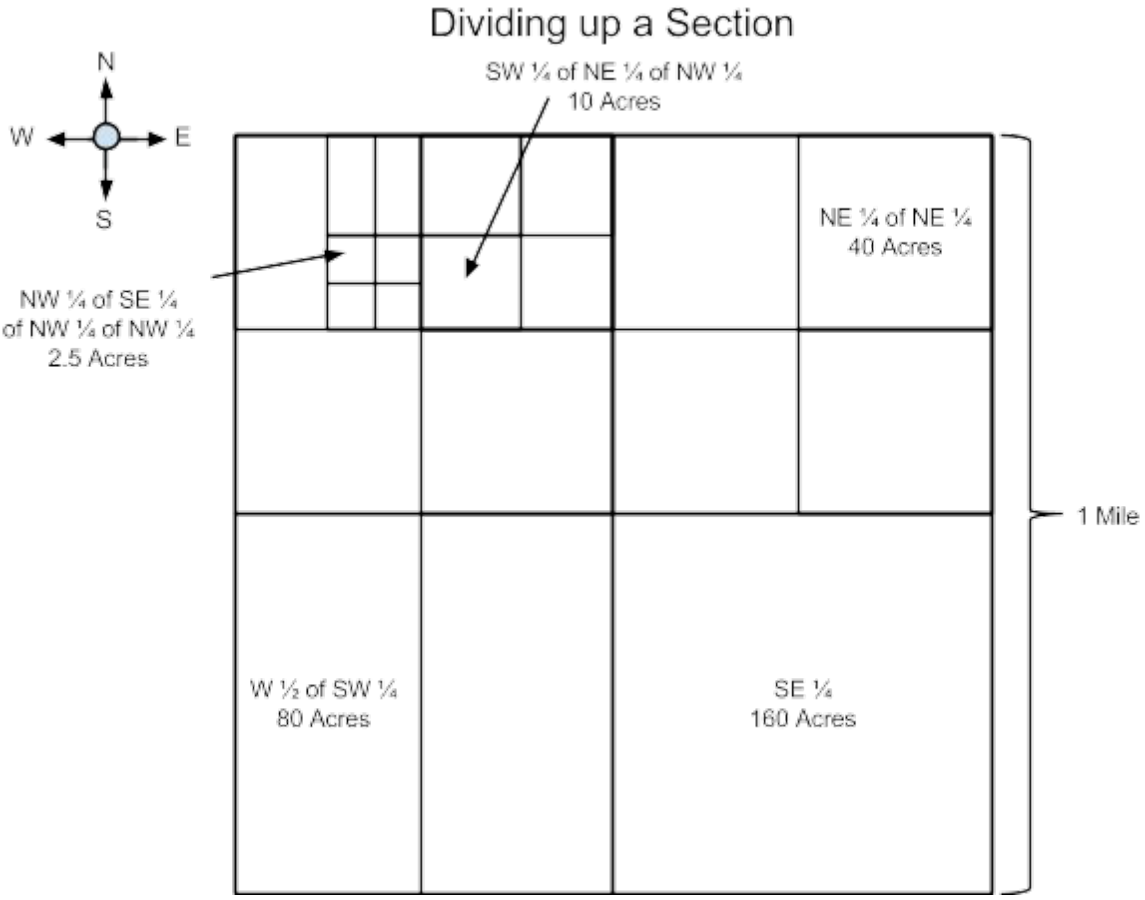
1 square mile = 640 acres
1 acre = 43,560 square feet
1 mile = 5,280 feet

An additional unit of measurement is known as a **rod**, which is equal to 16.5 feet and 1/320th of a mile. It's a unit of measure used by surveyors. A **surveyor** uses equipment to measure and calculate the distances, elevations, and depth of real property to provide an accurate map or model of an area. Surveyors are used to describe property using all three methods of description.

In general, a grid is a collection of townships and townships are a collection of sections (1 square mile). A section can also be divided into smaller parcels. A parcel is any smaller part of a section.

In the government survey system, there are bound to be discrepancies or difficulty accounting for all property when there are bodies of water and irregular shapes. These discrepancies are accounted for by **government lots**, regular or irregular shaped property smaller than a ¼ section that vary from regular subdivision sections. Government lots are often numbered (e.g. "Government Lot 3 of Section 12").

Let’s take a look at the process of dividing and describing land using the government survey system.



Calculating the size of a parcel in a section

When trying to determine the size of the parcel given to you, it is important to start with the knowledge that a section is 640 acres. From there, we can calculate its size. Let’s look at an example from the divided section shown in the previous diagram.

At the very top, you’ll see an arrow pointing to a parcel of the section that is labeled “SW ¼ of NE ¼ of NW ¼.” This phrase is a way of identifying the parcel of land using

directions; its called a description and you can think of it like an address. The diagram also tells us that the parcel is 10 acres in size. How do we know it is 10 acres?

To answer this question, note that you should read the description from right to left as opposed to the way we read naturally (left to right). It's easier to locate the parcel and to calculate the size this way. Starting from the right:

1. "NW ¼" means that the parcel is in the northwest quarter of the entire section. Since we know that a section is 640 acres, we can calculate that ¼ of the section totals 160 acres:

   640 acres / 4 = 160 acres

   This is helpful, but let's keep going to our next location indicator.
2. ""NE ¼" is the next part in the description. This phrase tells us that we need to take an additional ¼ of the "NW ¼", which we just calculated in Step 1. Our quarter section from the first step is 160 acres so let's find out what ¼ of our 160 acres comes to.

   160 acres / 4 = 40 acres

   Now we know that ¼ of ¼ of a section is equal to 40 acres. For our final step we need to add the last piece.

3. "SW ¼ " is the final part of the description, which tells us that we need to take an additional ¼ from the *¼ of ¼ of a section that we calculated in Step 2.* Our quarter of a quarter of a section was determined to be 40 acres. So to finish we need to find out what ¼ of our previously determined value by:

   40 acres / 4 = 10 acres

Now that we've done this very intentionally, let's look at a shortcut. If you are asked the acreage of a divided section, all you need is the denominator in each portion of the given directions. For example, if you are asked to determine the size of the property that is the NW ½ of SE ¼ of NE ¼ we go backwards as mentioned earlier, but only need the denominators of each directional, provided a 1 is in the numerator for each fraction. If a 1 is not in the numerator of any of the directional values, we cannot use this shortcut. To refresh your memory, the numerator is on top and the denominator is on the bottom.

$$\frac{1 \longrightarrow \text{Numerator}}{4 \longrightarrow \text{Denominator}}$$

If we go backwards and only use the denominators, we can use the following shortcut equation to calculate its size; that is, just place the denominators from right (3rd numerator) to left (1st numerator) into the following equation.

Shortcut equation:

640 acres / <3rd numerator> = X acres
X acres / <2nd numerator> = Y acres
Y acres / <1st numerator> = Z acres

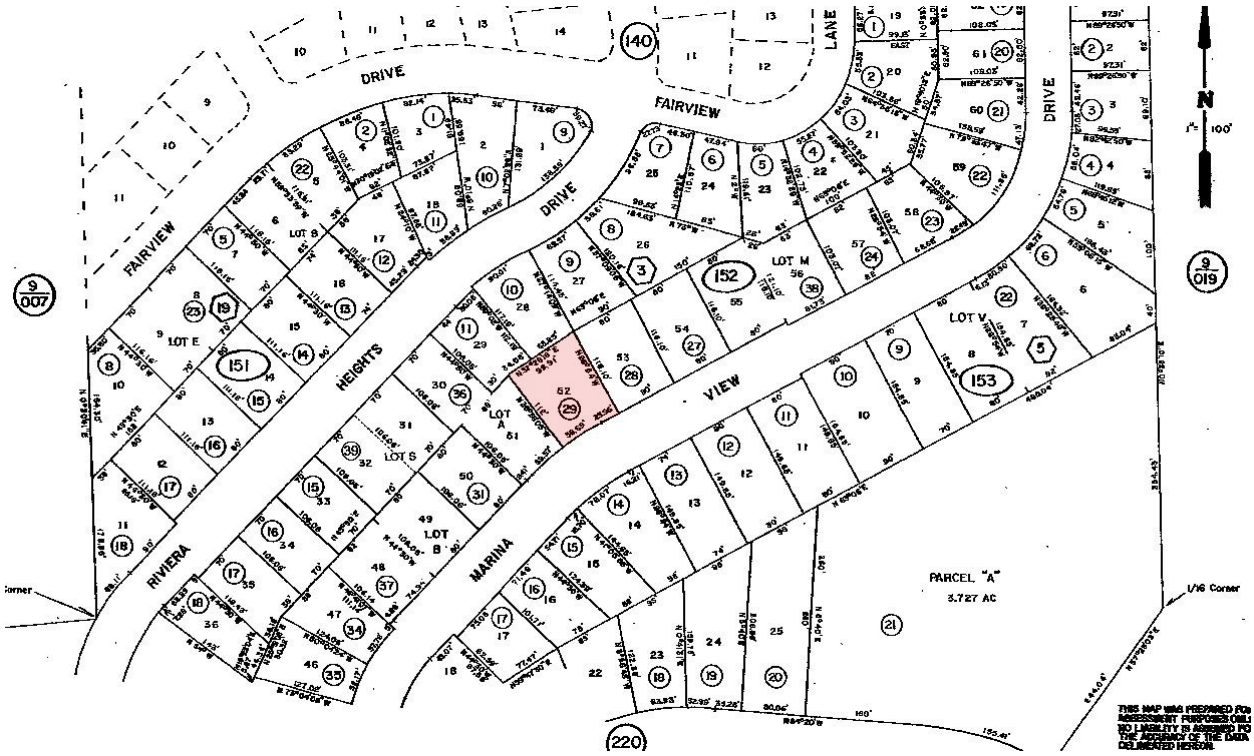
So in the example provided of “NW ½ of SE ¼ of NE ¼”, enter 4, then 4, then 2 into the shortcut equation, and calculate as follows:

640 acres / 4 = 160 acres
160 acres / 4 = 40 acres
40 acres / 2 = 20 acres

Using this shortcut, we see that the “NW ½ of SE ¼ of NE ¼” is 20 acres in size.

Plat Map (aka Lot and Block Survey System)

The plat map method is often referred to as a **lot and block survey system**. A lot and block description is the most commonly used method for describing residential real estate. When land is subdivided, it is broken up into a series of blocks and lots, which are mapped out by a surveyor on a subdivision map called a plat. Here is a look at a plat map.



When a plat has been finalized and recorded, it becomes a sufficient legal description to identify the property. **Recording** is the act of having a document officially put into the public records of the government. Much like the Government Survey System, there is an order to the description that leads you to find the property. The description is broken down into the following components:

- Where to find the the map, or location of recording. For example, records of King County.
- The page or location reference of where to find the map. For example, page 12.
- The name of the subdivision map, or plat, where it is located. For example, Lakeview Crossing, Phase 2.
- The block where the lot is found if there is one.
- The individual lot.

This list works backwards from the way you will see it in the description. While the list starts with the most general item and ends with the most specific, the actual description does the opposite meaning you may want to read it backwards to best comprehend. Here is an example of a legal description using the Lot and Block Survey System:

LOT 14, HAYWOOD HILLS, ACCORDING TO THE PLAT THEREOF RECORDED ON VOLUME 32 OF PLATS, PAGES (S) 121-123, INCLUSIVE RECORDS OF SNOHOMISH COUNTY, WASHINGTON. SITUATE IN THE COUNTY OF SNOHOMISH, STATE OF WASHINGTON

A lot and block description is the most commonly used method for describing residential real estate.

Elevations

Surveyors not only describe the size and borders of property, they also are often needed to describe elevations of property. An **air lot**, which is the area above the ground needs to be described using elevations. Air lots can be transferred just like subsurface rights and can be split just like land. In order to measure elevation there needs to be a starting point which the elevation is measured from so it is consistent regardless of who the surveyor is. Elevations are used for describing condominium units since they are above the ground. The starting point for measuring elevation is a **datum**, and operates much like a point of beginning or a monument in a legal description. There are different datum's around the country and many cities have their own.

Another type of reference point that surveyors use is a **benchmark**, which are permanent reference points for a datum. The are permanent brass markers set in concrete and are meant to provide an immovable consistent reference to mark a datum.

Units of Measurement of Land

Property size is expressed primarily in square footage or acreage. There are situations where it will be necessary to find the square footage of a house or acreage on which it stands when you are only presented with the dimensions of the property or house. We will therefore summarize how to determine the size of lots. Size is a way of saying we want to find the area of a piece of property or house.

When determining lot sizes and comparing properties, the crucial elements are finding out how the dimensions are listed (i.e. feet, yards, acres). One of the most common mistakes is not changing dimensions into the same unit of measurement or not converting it into the requested unit of measurement after completing the calculation. The most common conversions are:

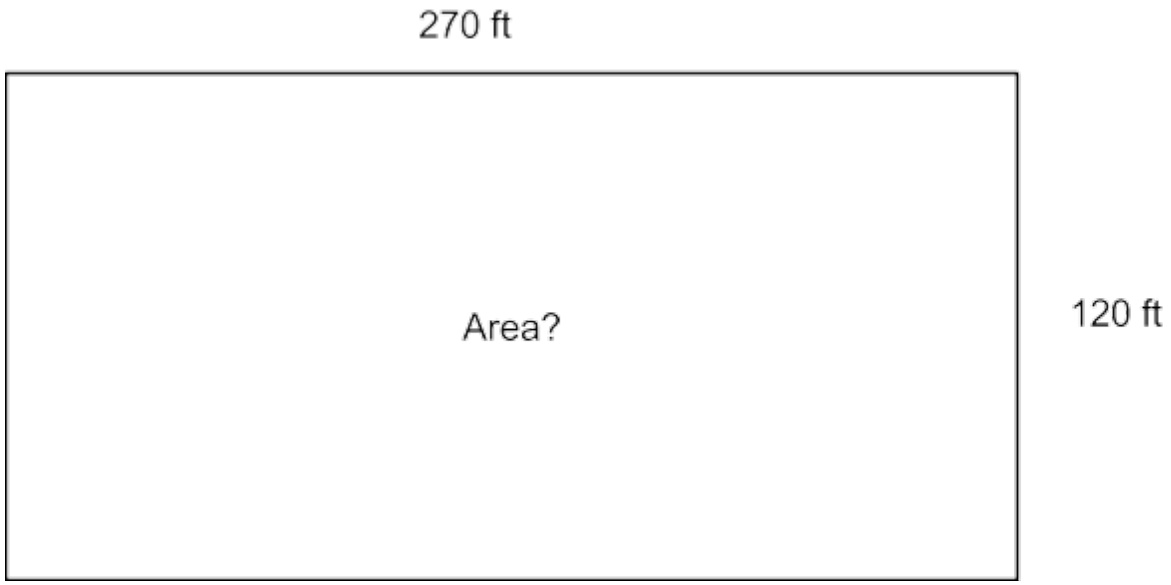
3 feet = 1 yard
1 mile = 5,280 feet
1 acre = 43,560 square feet

It is important to remember that on your exam you will not be given these conversions and therefore, you should memorize them.

The next three sections will walk through examples of problems you will want to be comfortable with when you take the exam.

Determining Lot Size

You may be presented with a piece of property with dimensions like the following:



With this example, let's find the size of the property in acres. Since acreage is a unit of area and not length we will need to find the area in square footage and then convert it to acreage. This means we cannot first convert the length of 270 ft into acres and instead, must continue to work in feet before making the switch. We know from our conversions above that 1 acre = 43,560 square feet. So if we find the square footage, we can then determine the acreage.

The formula for finding the area of a rectangle or square is:

Area = Length x Width

To find the area, plug in the values:

Area = 270 feet x 120 feet
Area = 32,400 square feet

Next, we need to convert 32,400 square feet into acres. From above, remember that:

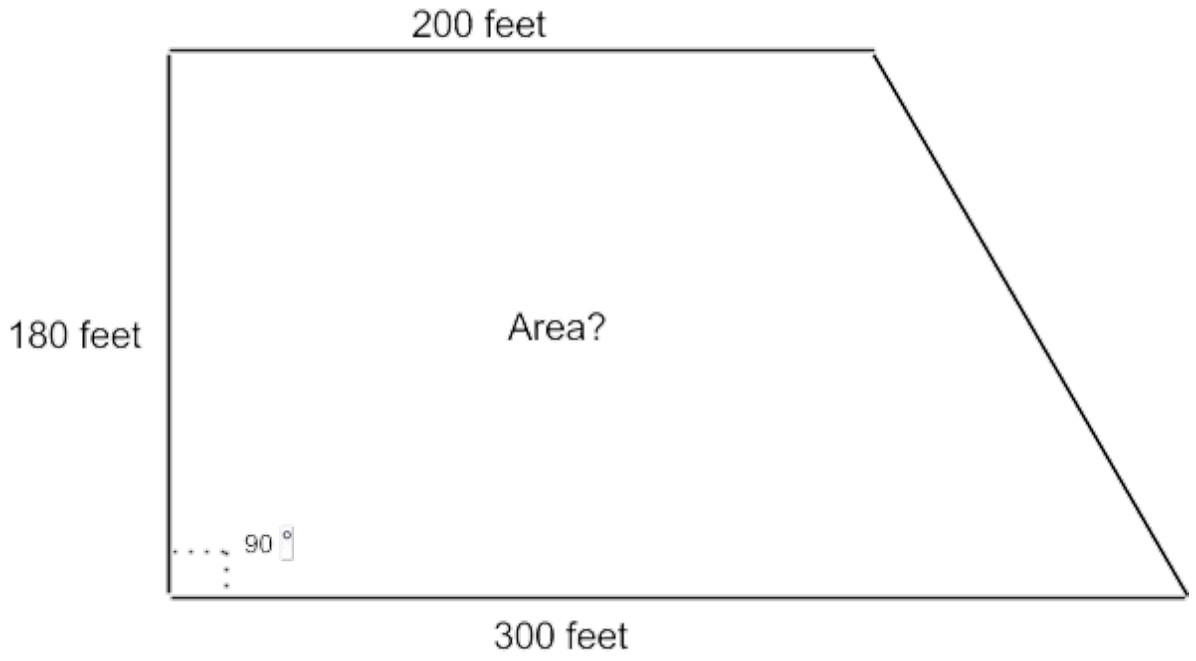
1 acre = 43,560 square feet

To determine the acreage, divide as follows:

Acres = 32,400 square feet / 43,560 square feet
Acres = .744

Irregular Shapes

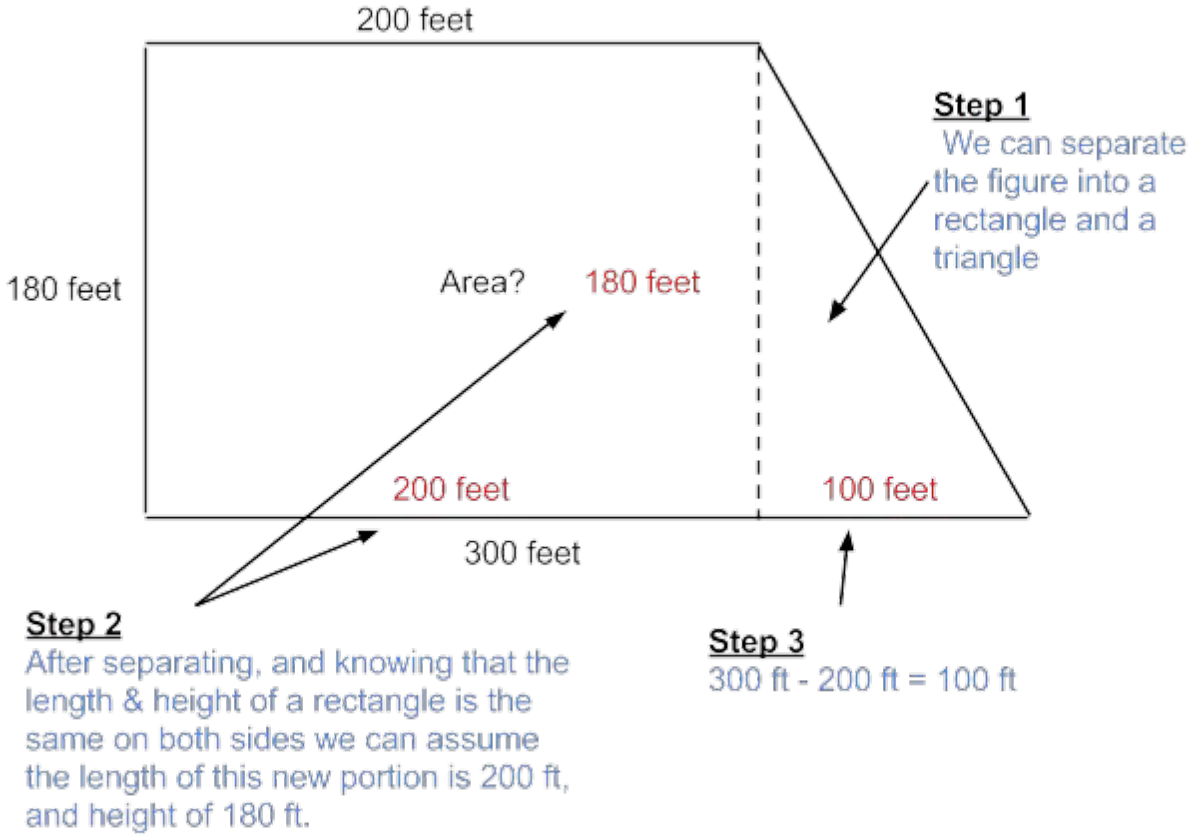
Now let's look at a slightly more complicated version given the diagram below. How can the acreage of this figure be calculated?



Finding the area of this figure will require breaking the problem down into workable parts. More specifically, a rectangle and a triangle. You might recall that the area of a triangle is:

Area of a Triangle = ½ Base x Height

The following diagram shows how we can divide up this figure.



With the new information, we have all we need to calculate our area in three more steps.

1. Area of rectangle = 200 feet x 180 feet
   Area of rectangle = 36,000 square feet
2. Area of triangle = ½ 100 feet x 180 feet
   Area of triangle = 9,000 square feet
3. In total, this means:
   Total area = 36,000 square feet + 9,000 square feet Total area = 45,000 square feet

Now that we have our total square footage, we can convert to the unit of measurement required, acreage. We'll use the same process as before.

1 acre = 43,560 square feet
Acres = 45,000 square feet / 43,560 square feet
Acres = 1.03

Calculating Value

Seeing a diagram like the one shown previously can make calculating the size fairly concrete, but sometimes you may be presented with information in a story form and will need to find the area as part of other tasks. For example, consider the following: you are told that a lot has dimensions of 195 feet long and 95 feet wide and then asked to determine the price that the property should be worth if similar property is sold at $120,000 per acre. To approach this, you will need to:

1. Decide what measurement (e.g. feet, acres) your answer needs to be expressed in. In this case, it is acres.
2. Calculate the size of the property. In this case, 195 feet by 95 feet.
3. Multiply the size in acres by the cost per acre of the similar property.

The calculations in this example are as follows:

1. The final answer needs to be in acres.
2. The size of the property is: 195 feet * 95 feet = 18,525 square feet
3. The size in acres is: 18,525 square feet / 43560 square feet (1 acre) = .4253 acres
4. By dividing, the cost for the property would be: .4253 acres * $120,000 = $51,036

Determining Lot Dimensions

The various parts of the problems summarized so far may instead occur in other forms on your exam. An example is you may be asked to determine the width of a lot when all you are told is the total square footage of the lot and its length. So how would that be calculated? Let's look at an example.

Property A is 24,000 square feet is size. It is 220 feet in length, what is its width?

To calculate the answer, review the calculation for lot size, which is the same as determining the area of a rectangle in this particular case.

Area = Width * Length

Since we are told the area and the length, we need to adjust our formula as follows:

If,
Area = Width * Length
then,
Area / Length = Width

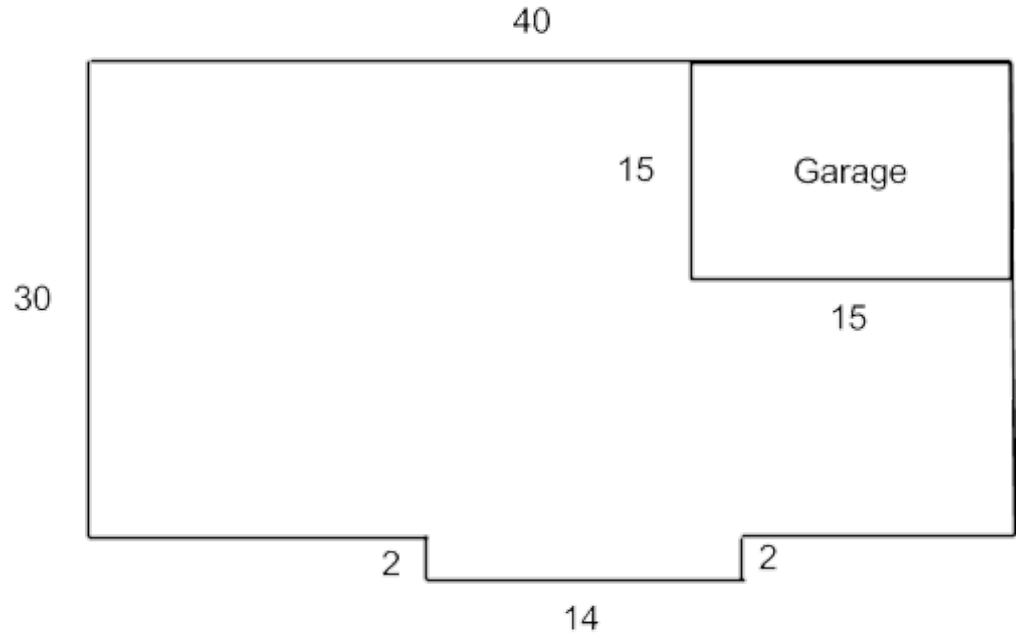
So in our problem, we can divide the area by the length, resulting in:

24,000 sq ft / 220 ft = 109.9 ft

If you can remember the basic formula, you can adjust the formulas as needed depending on what you need to solve for. The test will sometimes give you too much information, so be keenly aware of what the question is asking. Don't let yourself get distracted by possible facts - for example, the neighbor's property is 103 ft wide - that are not relevant to the question at hand.

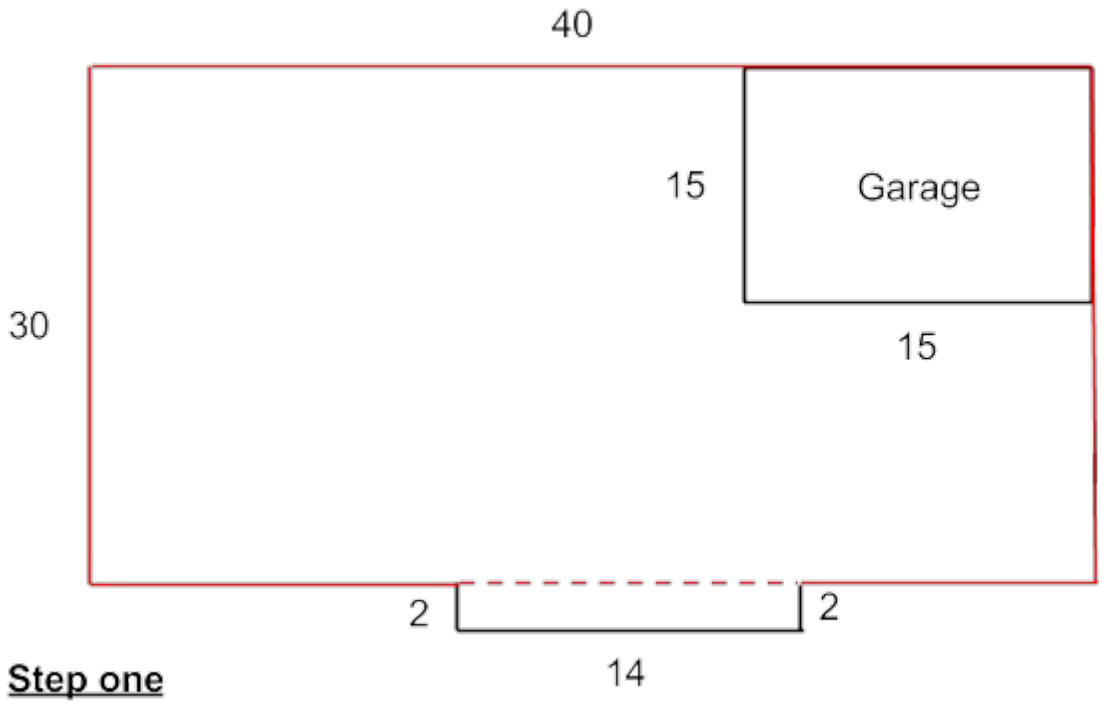
Size of a Home

Another common question on the exam is to be asked to calculate the livable square footage of a building. The challenge with these problems is that homes are often odd shapes and not everything is considered living area. Consider the following diagram of the layout of a home.



Calculating the livable area will require a few steps. First, note that we are finding the living area of the home, meaning the garage will need to be taken out of the square footage calculations.

We should start by separating the problem into workable pieces. The red lines below show that you can think of the area as three rectangles.



Step one
Divide the area into measurable parts

To calculate the area, focus on each rectangle separately:

1. Calculate the total possible area:

   Main Building: 30 x 40 = 1,200 square feet
   Extra area: 2 x 14 = 28 square feet
   Total area: 1,200 + 28 square feet = 1,228 square feet

2. Subtract the non-living area.

   Garage: 15 x 15 = 225 square feet
   Total living area: 1,228 square feet - 225 square feet = 1,003 square feet of living area

Legal Descriptions Key Terms

Legal Description - Is the description of the boundaries of land.

Metes and Bounds - Metes and bounds is a system of describing land that originated in England. The system uses: Monuments, which can may be man-made objects (e.g. a survey marker, post, or road) or natural objects (e.g. lake, river, tree, or rock). Courses or directions from a compass reading (known as compass bearings) and Distances.

Point of Beginning - The description will start at a point of beginning around the boundary of the property, which is well defined (it usually makes reference to a monument, which is a concrete place to start).

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Township - This is the area of one of the 6 mile by 6 mile rectangles (totaling 36 square miles).

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Recording - is the act of having a document officially put into the public records of the government.

Air Lot - is the area above the ground needs to be described using elevations. Air lots can be transferred just like subsurface rights and can be split just like land.

Datum - is the starting point for measuring elevation and operates much like a point of beginning or a monument in a legal description.

Benchmark - Is a permanent reference points for a datum. The are permanent brass markers set in concrete and are meant to provide an immovable consistent reference to mark a datum.