

Start with a Book: Space Rangers

Sidewalk Chalk Constellations



Introduction

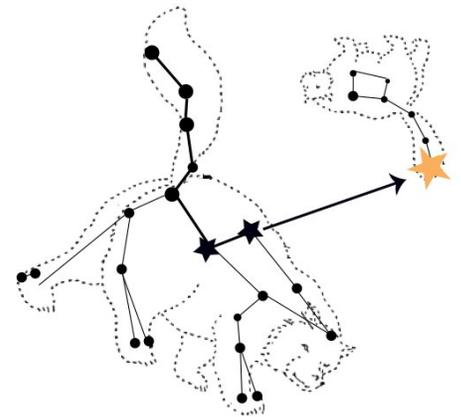
A constellation is a group of stars that make up an imaginary shape in the night sky.

In ancient times, people saw patterns of stars in the night sky that seemed to make recognizable shapes. Some of them are named after mythical heroes like Hercules and Orion the Hunter. Other star patterns are named after animals, like Ursa Major — the big bear.

The star patterns became a way to preserve stories, like the legend of Perseus rescuing the princess Andromeda from a sea monster named Cetus.

As astronomers began mapping the night sky, these star patterns were included in the maps and called “constellations.” There are 88 official constellations, according to the International Astronomical Union. At different times of the year, different constellations can be seen in the sky.

Sailors have used constellations to help with navigation for thousands of years. It’s pretty easy to spot Polaris (North Star) once you’ve found Ursa Minor (Little Dipper).



Get kids thinking

- Have you ever looked for the Little Dipper and the North Star in the night sky?
- Can you guess why we see different constellations in the summer night sky than we see in the fall, winter, or spring? In the summer, we can see Hercules the Hero but we can't see Orion the Hunter (we see Orion in the winter sky).
- Do you know any stories about constellations, like the stories of Hercules, Orion the Hunter, or Pegasus the winged horse?





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This would be a great time to read a story about constellations, such as this Native American tale about the creation of the Big Dipper such as *Her Seven Brothers* by Paul Goble. Or you could read one of the stories from these books by Jacqueline Mitton: *Zoo in the Sky* or *Once Upon a Starry Night*.

Supplies

- Summer sky constellation template and constellation card templates (provided)
- Buckets of sidewalk chalk
- Plastic buckets with rocks, pebbles, bottle caps (these are the “stars” in your constellation)

Let's get started!

In this activity, kids will build a favorite constellation outside using rocks, pebbles, bottle caps, and chalk.

Print out a copy of the summer sky constellation chart for each child. Also print out enough of the individual constellation pages so that the kids will have some options when they choose their constellation for this activity. The templates can be found after page 3.

Get everyone together in a circle, pass around the summer sky constellation charts, and talk about the different constellations on the chart. **ASK THE KIDS:** Can you identify any of the animals or characters?

Tell the kids that you've set out copies of different constellations on the table, and invite the kids to select one that they would like to “build” outside.

Time to head outside! Bring the buckets of rocks, pebbles and bottle caps outside where there's lots of sidewalk space. Show the kids how to draw their constellation on the sidewalk, starting with the pebbles, rocks, and bottle caps (these are the “stars”) and then use the chalk to connect the stars and complete their constellation. Thing big! And don't forget to have the kids write the names of their constellations in chalk next to their creation.

As a group, take a walking tour of your “night sky” and encourage each child to identify their constellation, and share a story about their animal or character if they know one.

To extend this activity, you can encourage the kids to create their own constellations — the “sky's the limit” when it comes to using their imaginations!





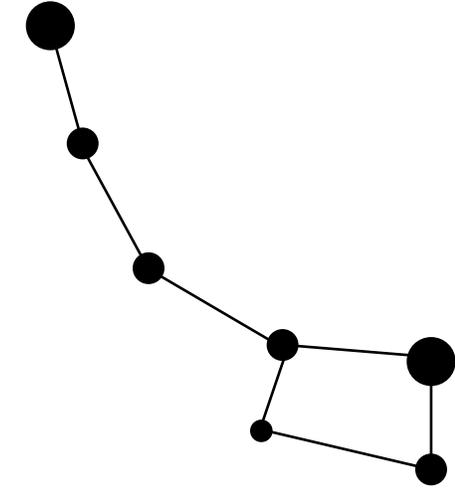
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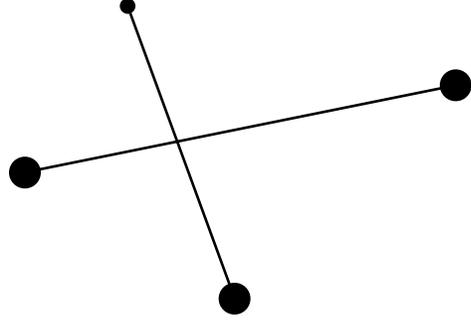


Photo © Creekside Learning

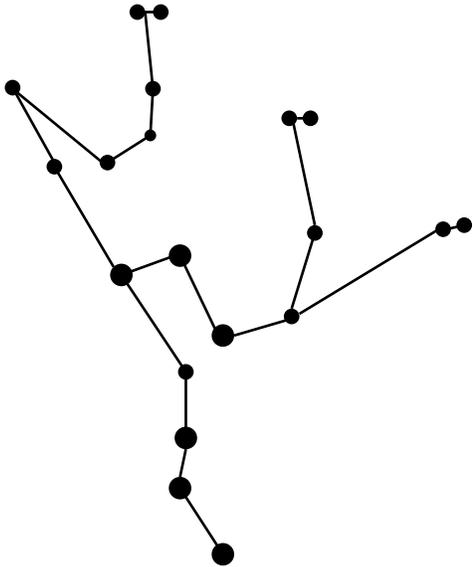




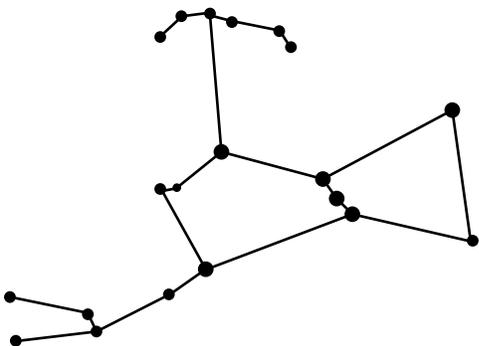
Little Dipper (Ursa Minor)



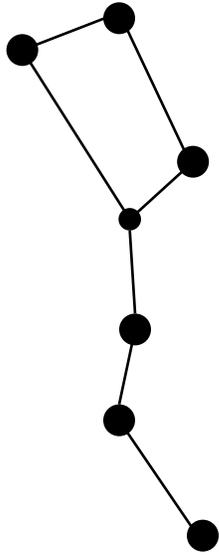
Southern Cross



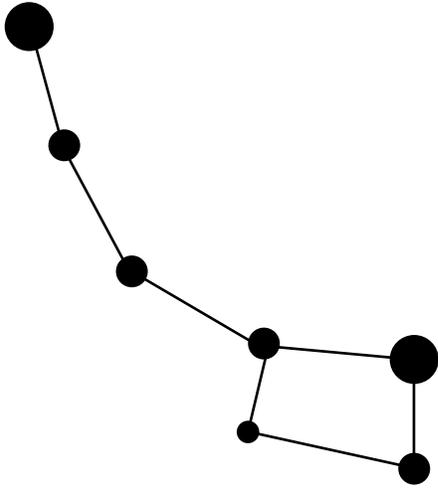
Ursa Major



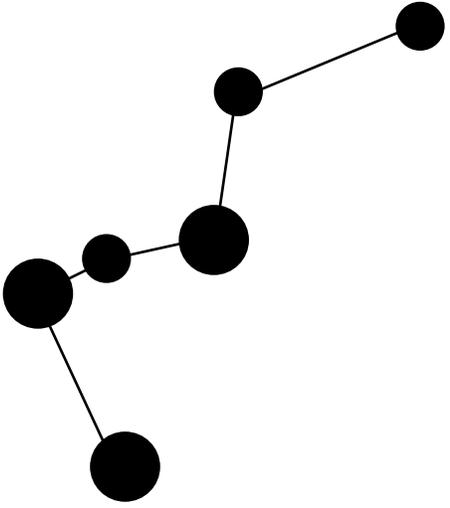
Orion



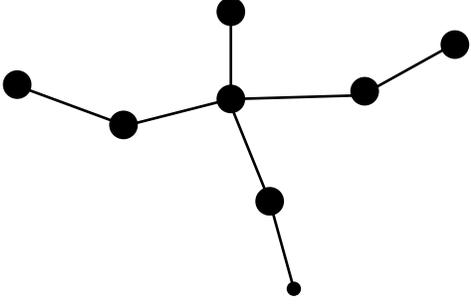
Big Dipper



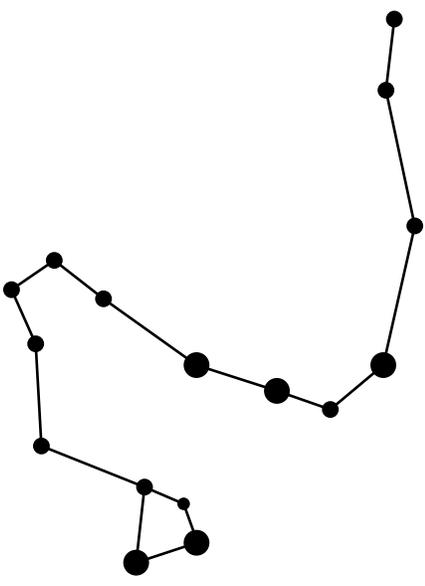
Little Dipper (Ursa Minor)



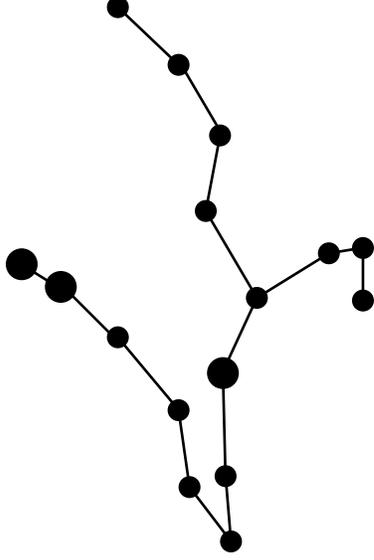
Cassiopeia



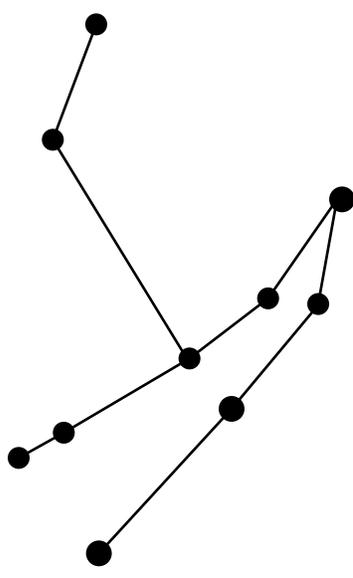
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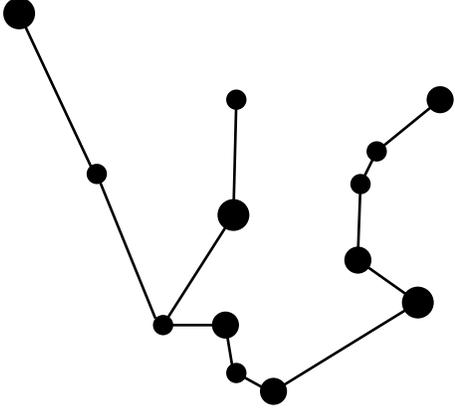
Draco



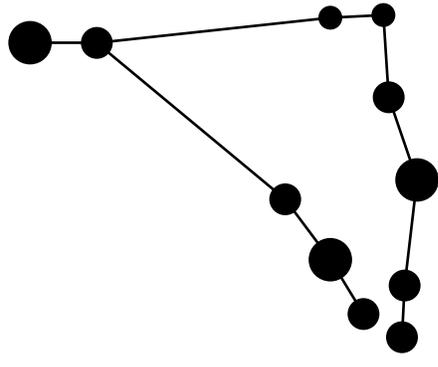
Perseus



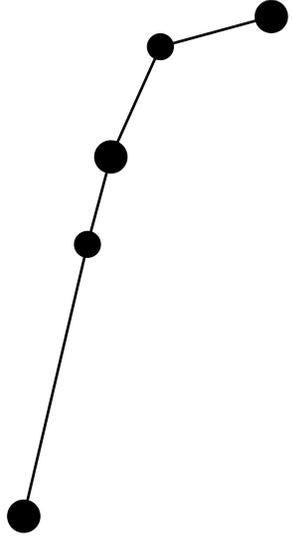
Andromeda



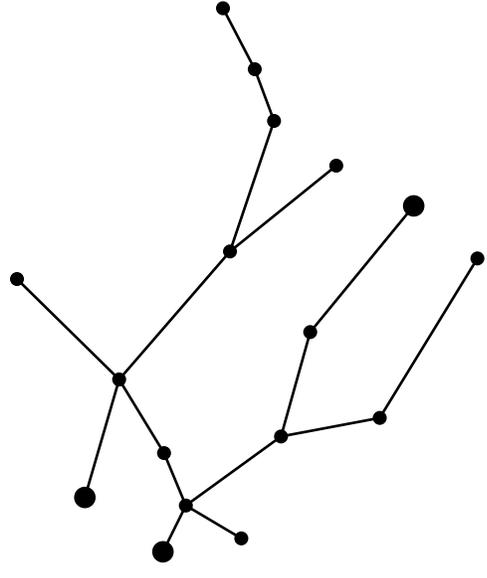
Aquarius



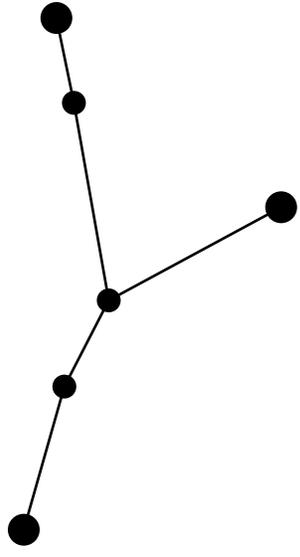
Capricorn



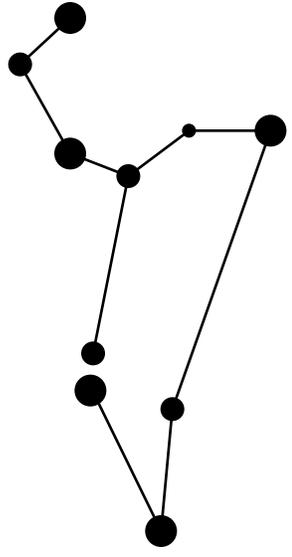
Aries



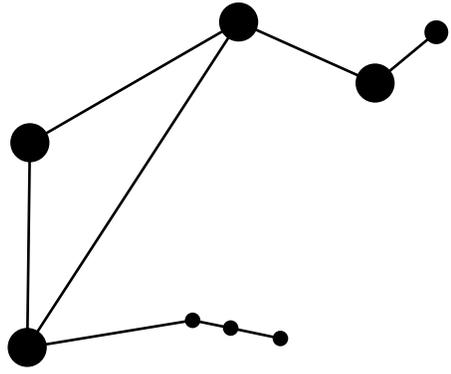
Gemini



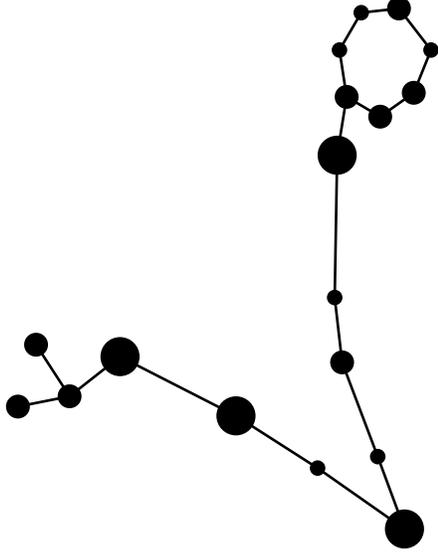
Cancer



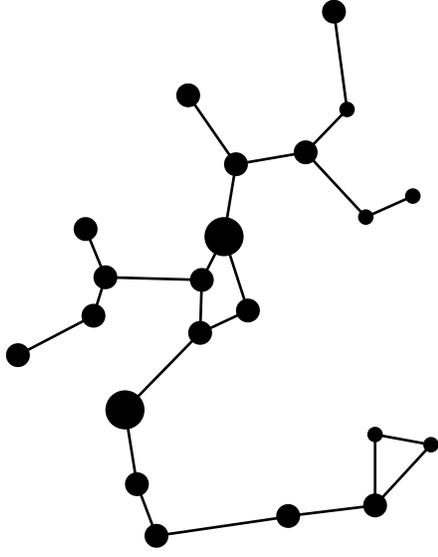
Leo



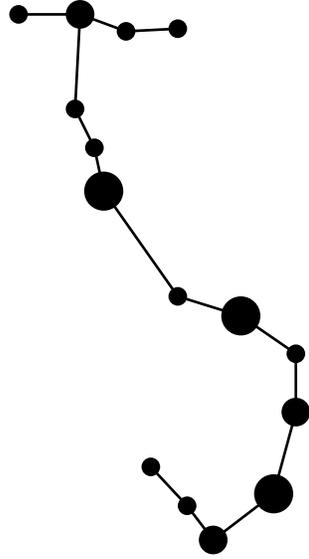
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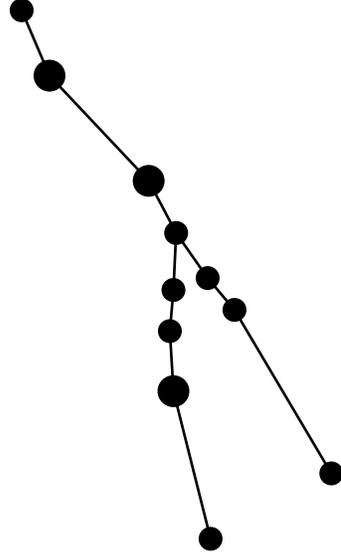
Pisces



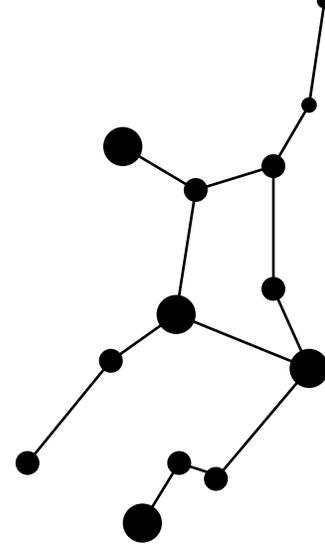
Sagittarius



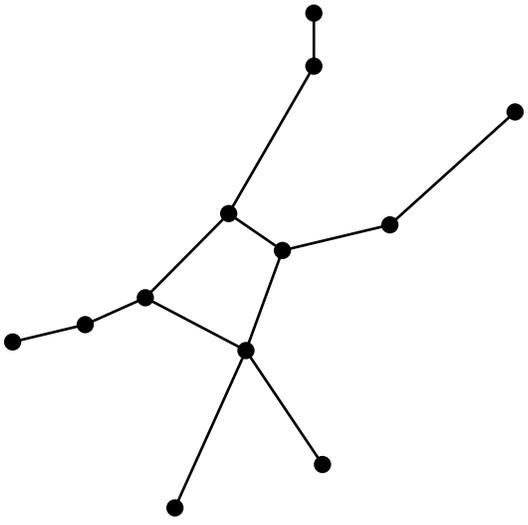
Scorpio



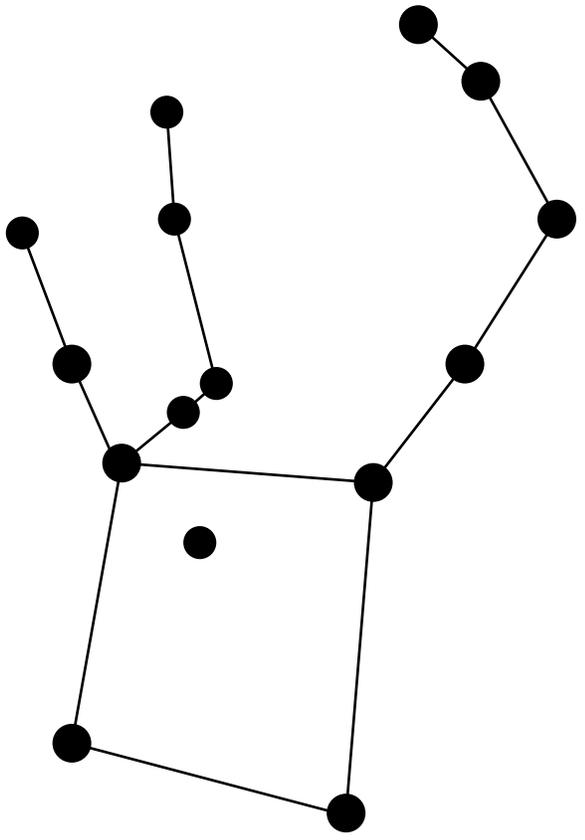
Taurus



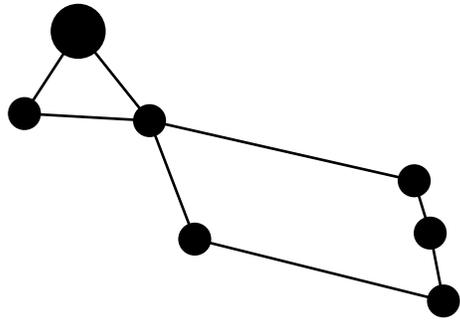
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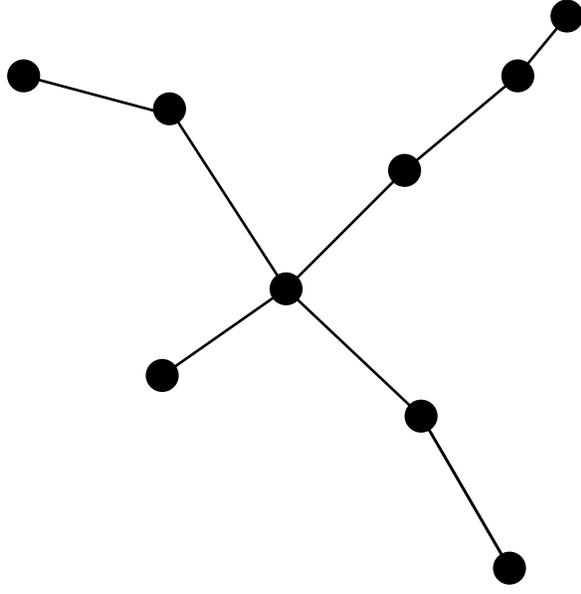
Hercules



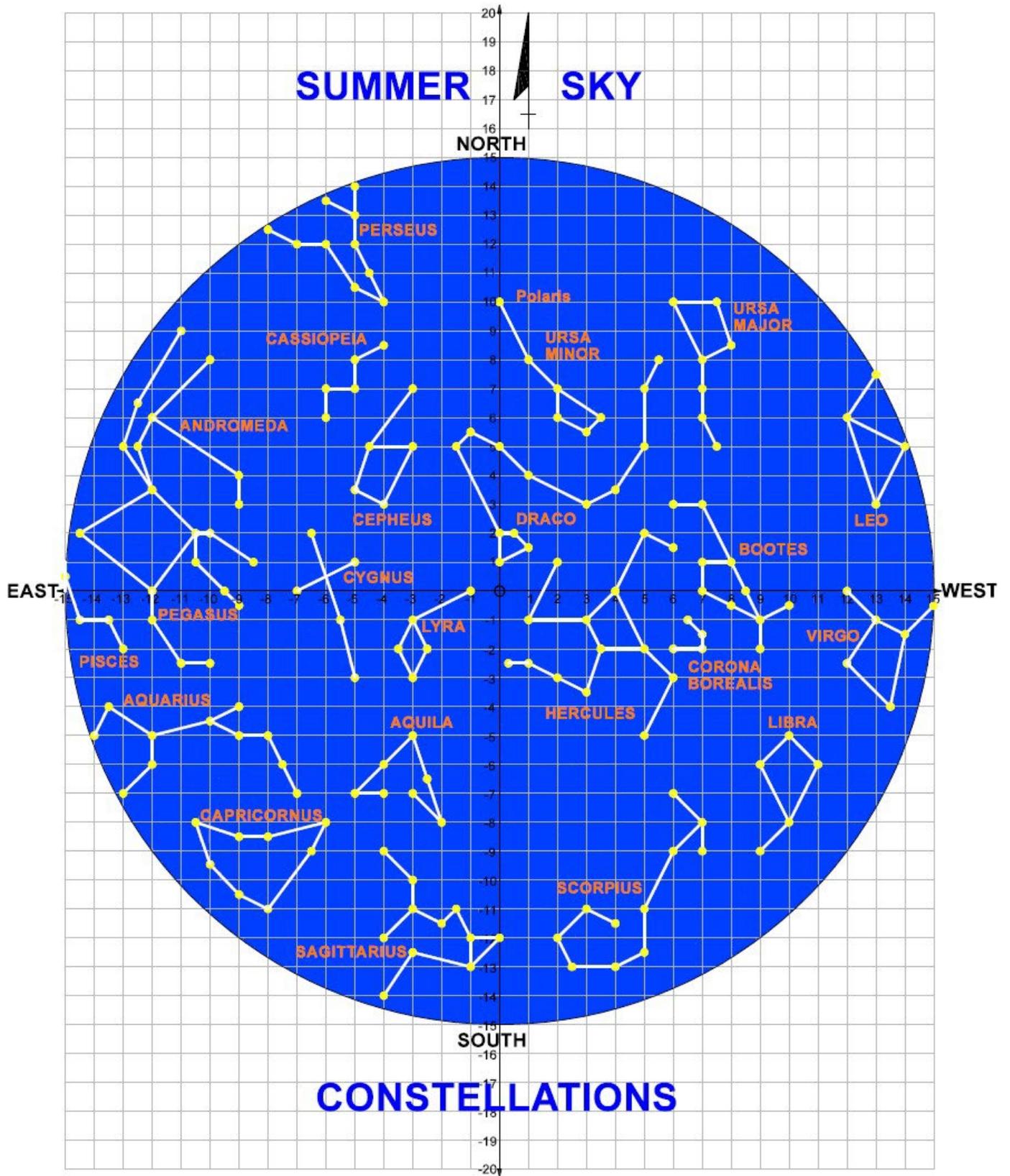
Pegasus



Lyra



Cygnus



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