

The most important summer job on the ranch is making sure the cattle have an **adequate supply** of fresh water all the time.

See, a cow can live without food for weeks, but she's got to have water every day. In hot weather, a cow needs 25 or 30 gallons of water a day, and when you multiply that number times the whole herd, you're looking at a large amount of water.

30 gallons x 300 cows = 9,000 gallons of water a day. Wow, that's a whole bunch of water! Hensley, the most important ranch job in the summer is checking the water supply.

The very best source of ranch water is the one Nature provides: springs, creeks, and ponds. But in the prairie country, such as ours, a rancher might not have natural water in every pasture. In fact, some ranches around here have no **surface water** at all. How do cattle get a drink in those pastures? Windmills.

The windmill works day and night, and it can operate for years without breaking down. But when it does break down, we've go problems, because the windmill provides the only source of water in most of our pastures for the livestock.

**Adequate** - enough or sufficient to meet a need.

Example: The cattle need an adequate amount of water every day.

**Supply** - the amount of something that is available to use.

Example: There is a limited supply of fresh water for the cows.

**Surface Water** - water that is found on the ground, such as in rivers, lakes, or ponds.

Example: Some ranches have no surface water, so they need windmills to pump water.

Windmill - a structure that uses wind to create power, often used on ranches to pump water.

Example: Windmills help provide water for cattle when there is no other water nearby.



## WATER MATH!

2-Digit by 1-Digit Multiplication. Solve the problems below.

In hot weather, a cow needs 30 gallons of water per day. How much water would she need for a whole week (7 days)?



If 1 cow needs 30 gallons of water per day, how much water would 2 cows need for a day?



How much water would you need for 1 cow for 3 days? Remember, a cow needs 30 gallons of water per day.







## Instructions:

- 1. Draw a windmill on your paper. You can make it with a simple rectangle for the tower and 4 blades for the windmill. Examples are on the next page.
- 2. Draw the Water Tank:
- 3. Below the windmill, draw a water tank. This is where the windmill pumps water for the cows.
- 4. Label Your Drawing:
  - a. Write next to the windmill, "Windmill pumps water for the cows."
  - b. Color Your Picture:
- 5. Color your windmill, tank, and the surrounding grass. Add a few cows around the tank if you'd like!



## WINDMILL EXAMPLES



