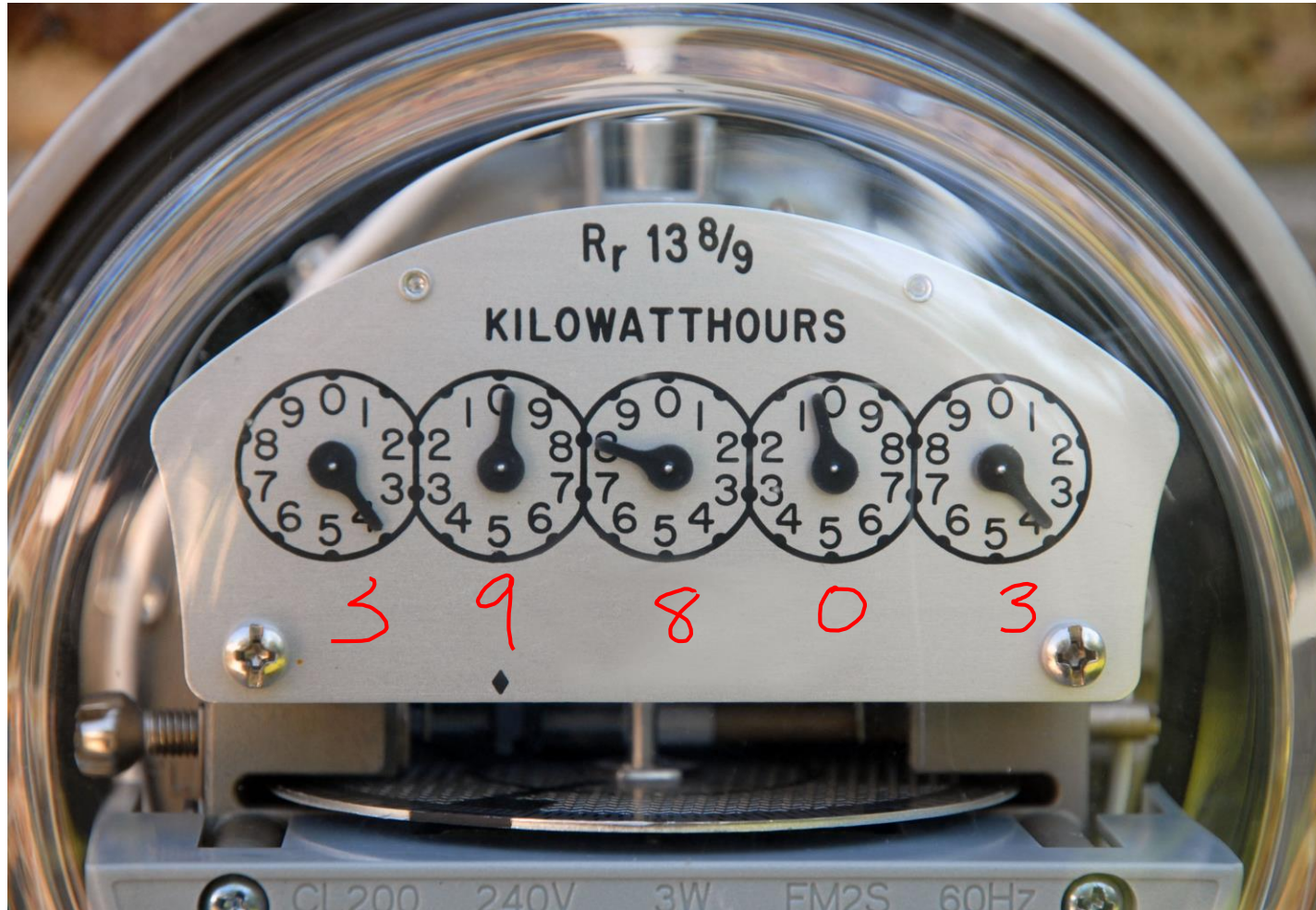


# Reading Hydro Meters



S1-3-22 Analyze the electrical energy consumption of a household appliance. Include: calculate consumption using Energuide labels, read hydro meter, interpret monthly hydro bill.

# Electricity Production...

Electrical power is made at HYDRO GENERATING stations in Northern Manitoba.

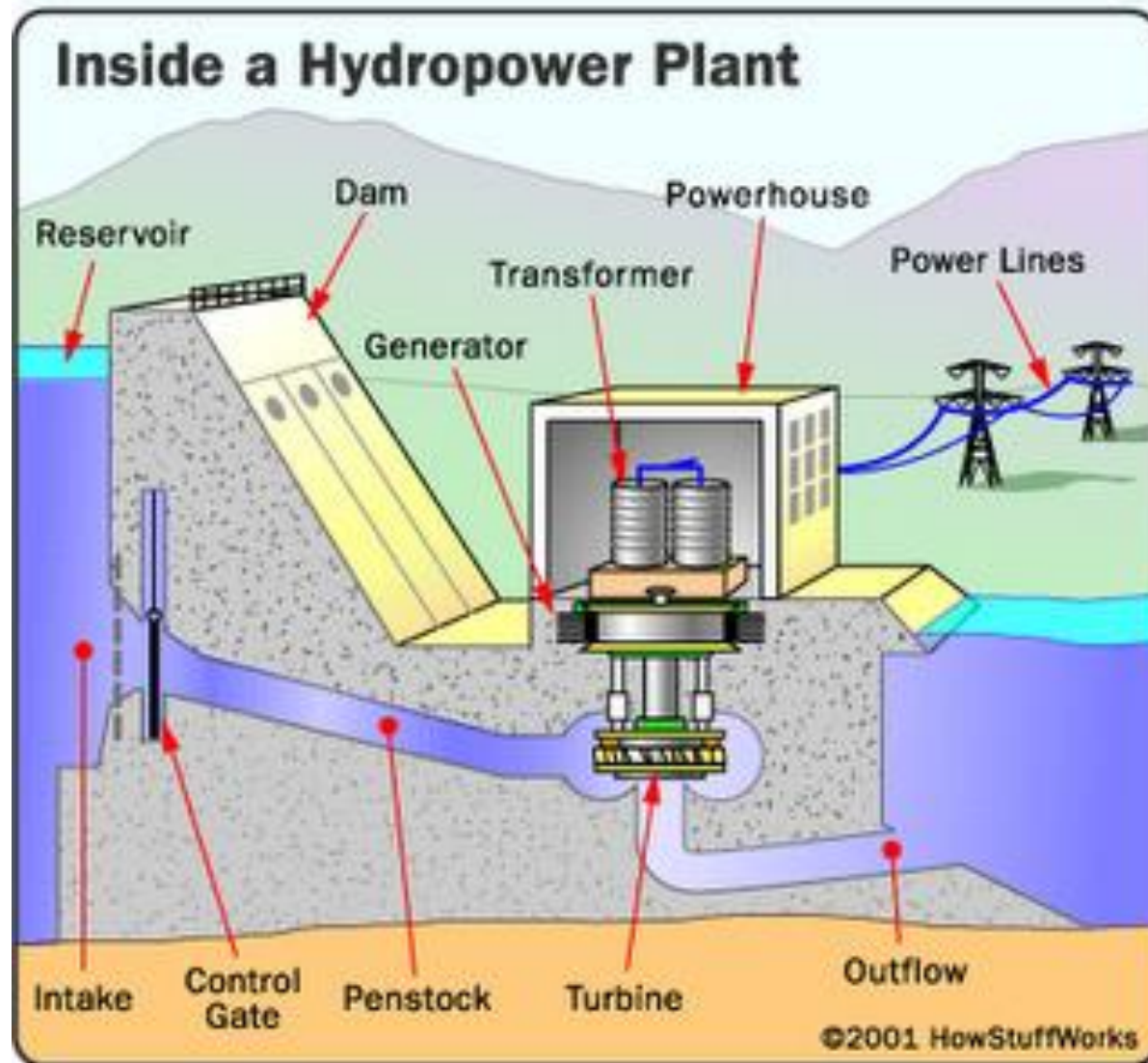


The seven sisters hydro dam in northern Manitoba  
(90km northeast of Winnipeg)



# Electricity Production...

Water flows through the dam, which turns a TURBINE, which turns a GENERATOR and makes electricity...



# Electricity Production...

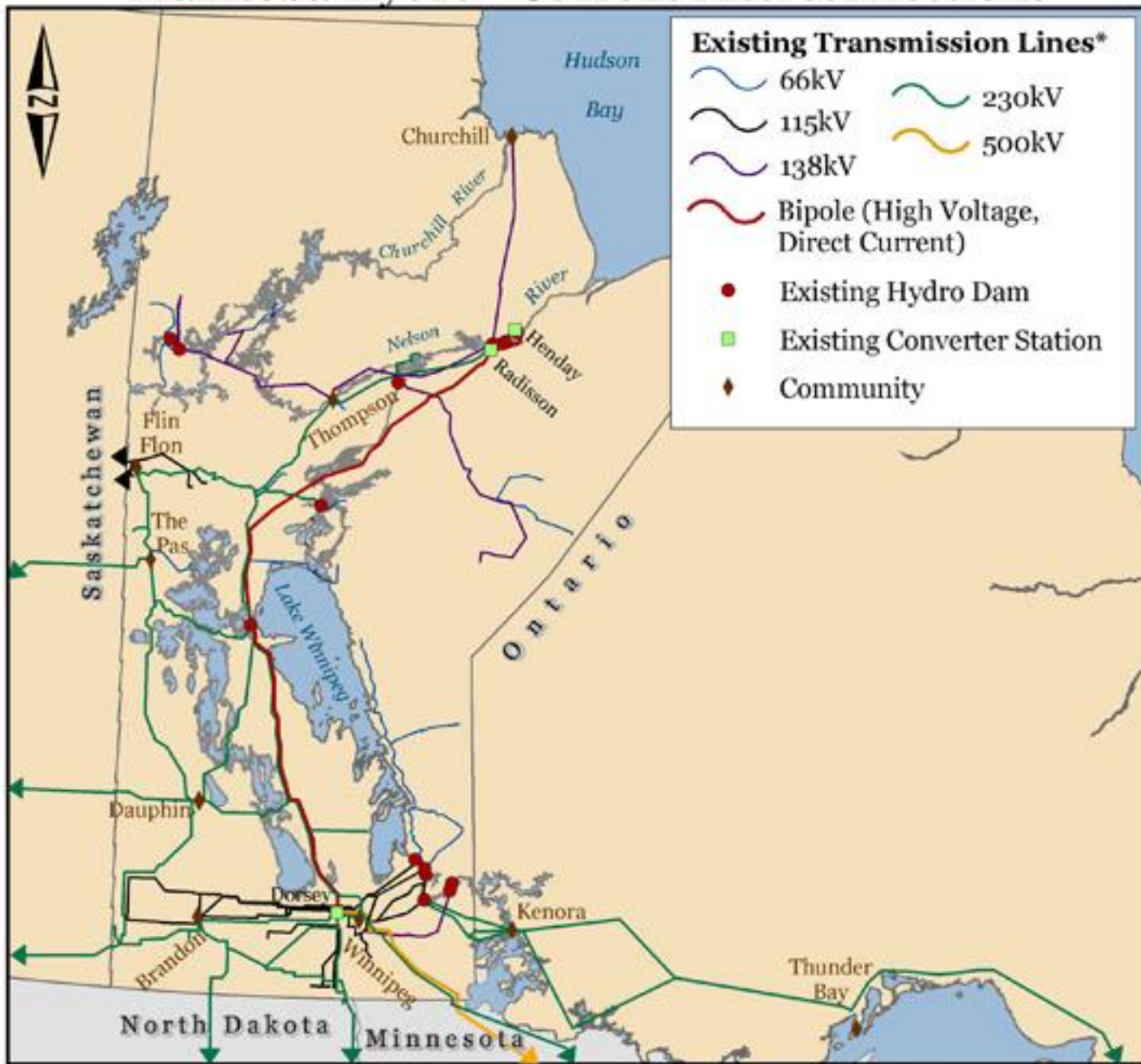
The electricity is TRANSMITTED through POWER LINES all across Manitoba.



[High Tension Line Worker](#)



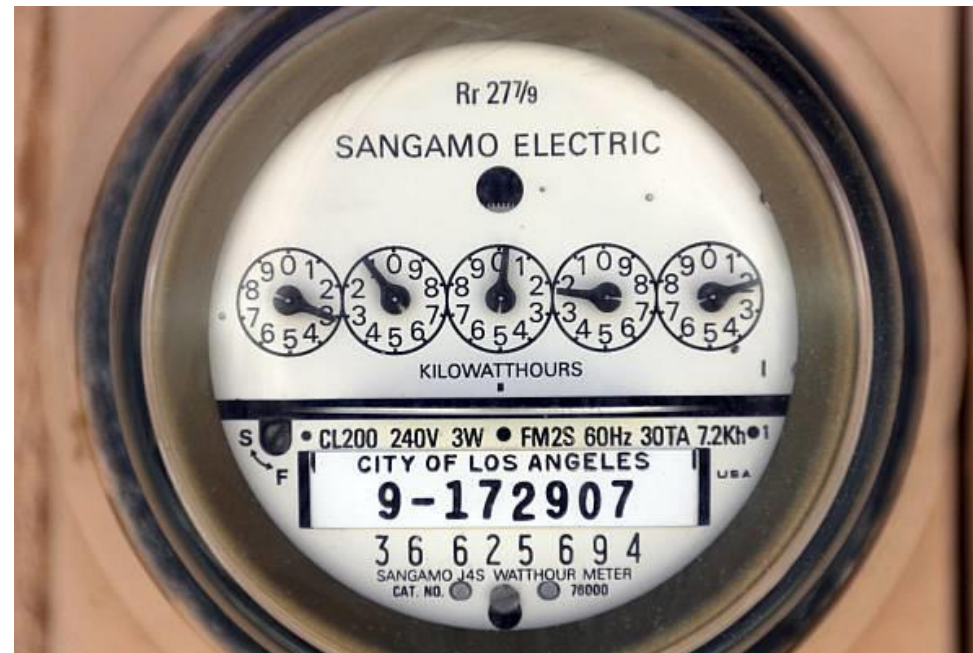
# Manitoba Hydro - Current Interconnections



# Determining Your Hydro Bill...

Anyone who has electricity at their home, has a MAIN WIRE connected from the HOUSE to these HYDRO LINES.

Before the electricity can be used in your home, it must pass through a METER.



# Determining Your Hydro Bill...

When you turn anything on in your house, **CURRENT** flows through the **METER**, and turns the **DIALS** on the meter.

The hydro meter measures how much **ELECTRICAL POWER** you **CONSUME**, and measures the power in **KILOWATT HOURS (kWh)**

Hydro will send someone to read your meter every other month or so. Sometimes they will **ESTIMATE** your power usage, and other times they will ask you to **READ** the **METER**, and phone in the reading.

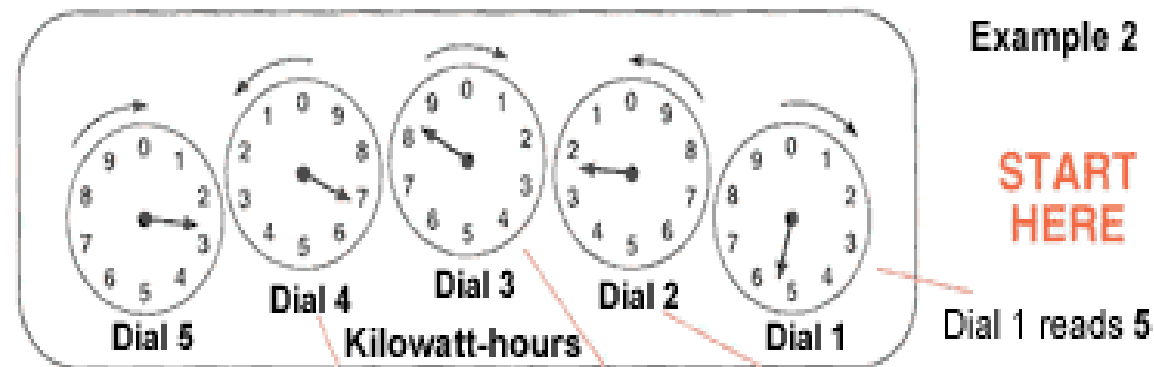
There are a number of **DIALS** on the meter. Each dial represents a **PLACE VALUE** (10's, 100's, 1000's, etc.). When we read these dials there are a couple of things we must remember:

- Check the **DIRECTION** the **DIAL** is **TURNING**
- Always read the **LOWER NUMBER** if the needle is **BETWEEN TWO NUMBERS**.

# Determining Your Hydro Bill...

To find out how much your power will cost for a month, you must:

- Take a reading at the **BEGINNING** of the month.
- Take another reading at the **END** of the month.
- Find the **DIFFERENCE** between the two readings. (this is how much **POWER** you **USED**)
- **MULTIPLY** the **AMOUNT USED** by the **PRICE** per **kWh**.



Example 2

START  
HERE

26825

Dial 1 reads 5

Dial 2 reads 2

Dial 3 reads 8

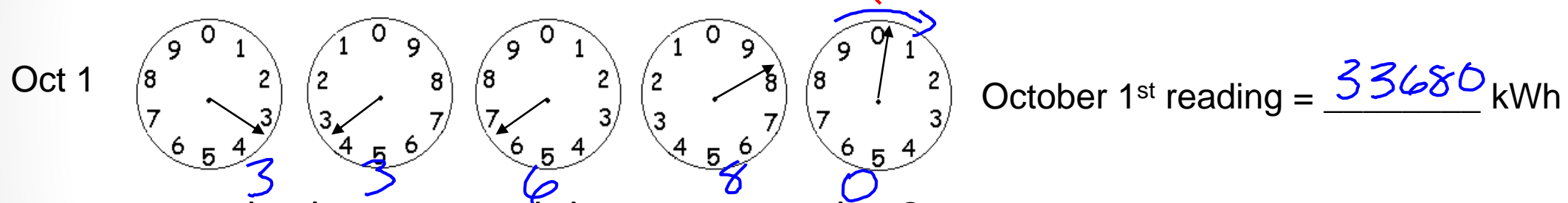
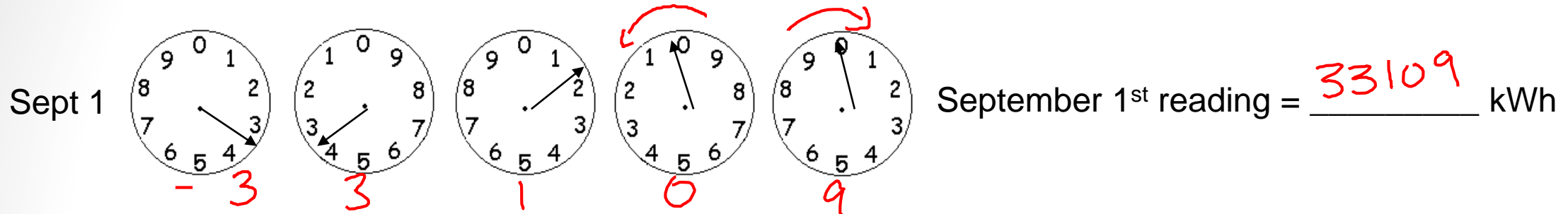
Dial 4 reads 6 (The pointer appears to be on the 7, but the actual reading is 6 because dial 3 has not made a full turn.)

Dial 5 reads 2



# Determining Your Hydro Bill Example...

1. Read each of the meters below:



2. How many kWh were used during September?

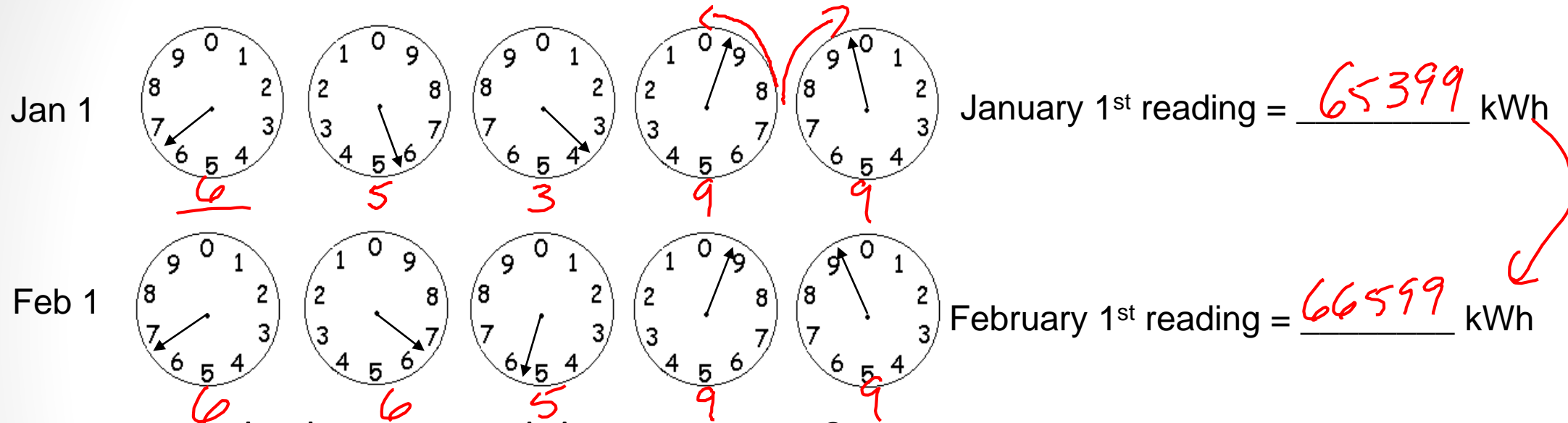
$$33680 - 33109 = 571 \text{ kWh}$$

3. If electricity costs six cents per kWh, calculate the billed amount for this customer.

$$571 \text{ kWh} \times \$0.06 = \$34.26$$

# Determining Your Hydro Bill Example...

1. Read each of the meters below:



2. How many kWh were used during January?

$$66599 - 65399 = 1200 \text{ kWh}$$

3. If electricity costs six cents per kWh, calculate the billed amount for this customer.

$$1200 \text{ kWh} \times 0.06 = \$72.00$$