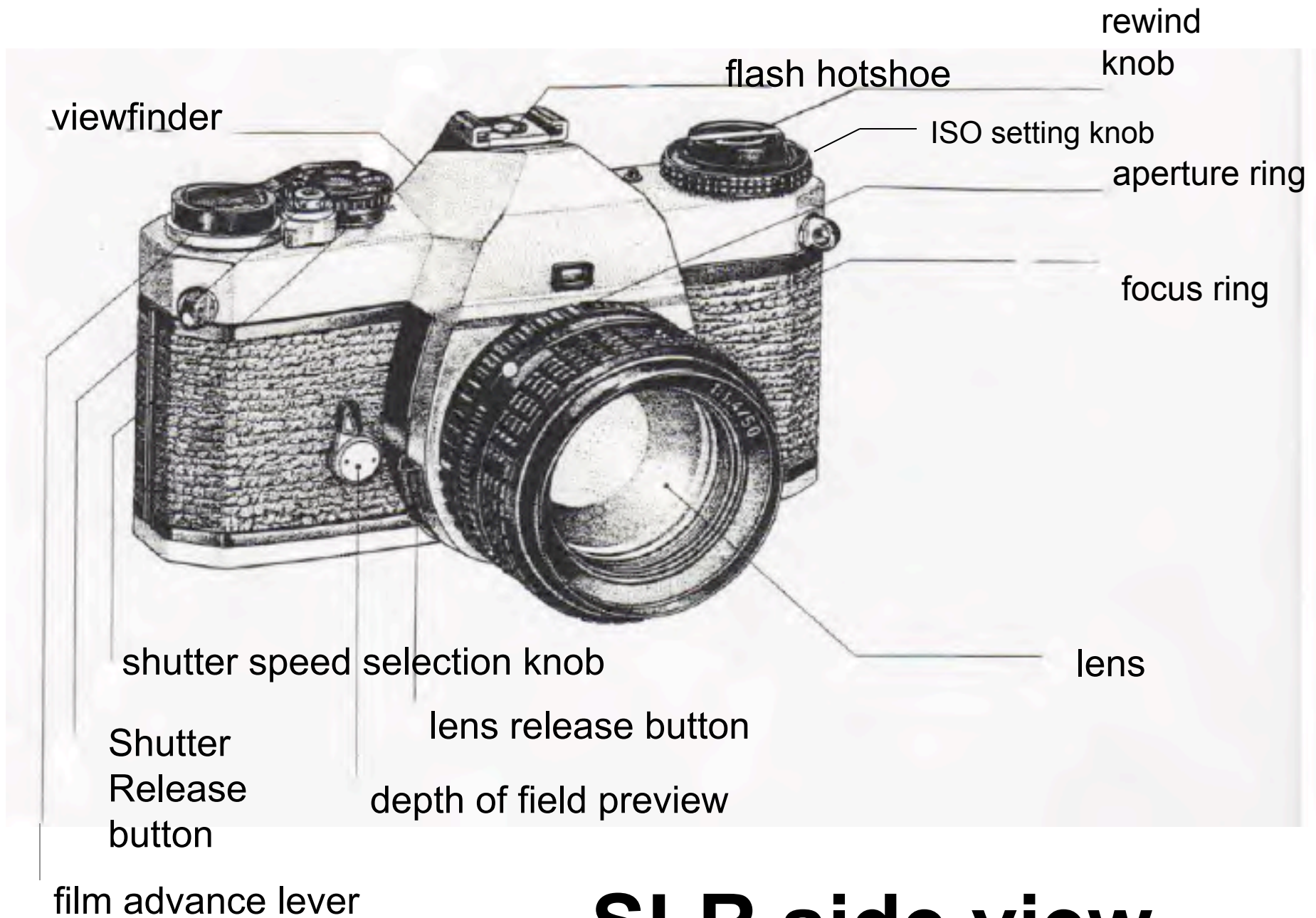


# Camera and Shooting Basics

## Learning Goal:

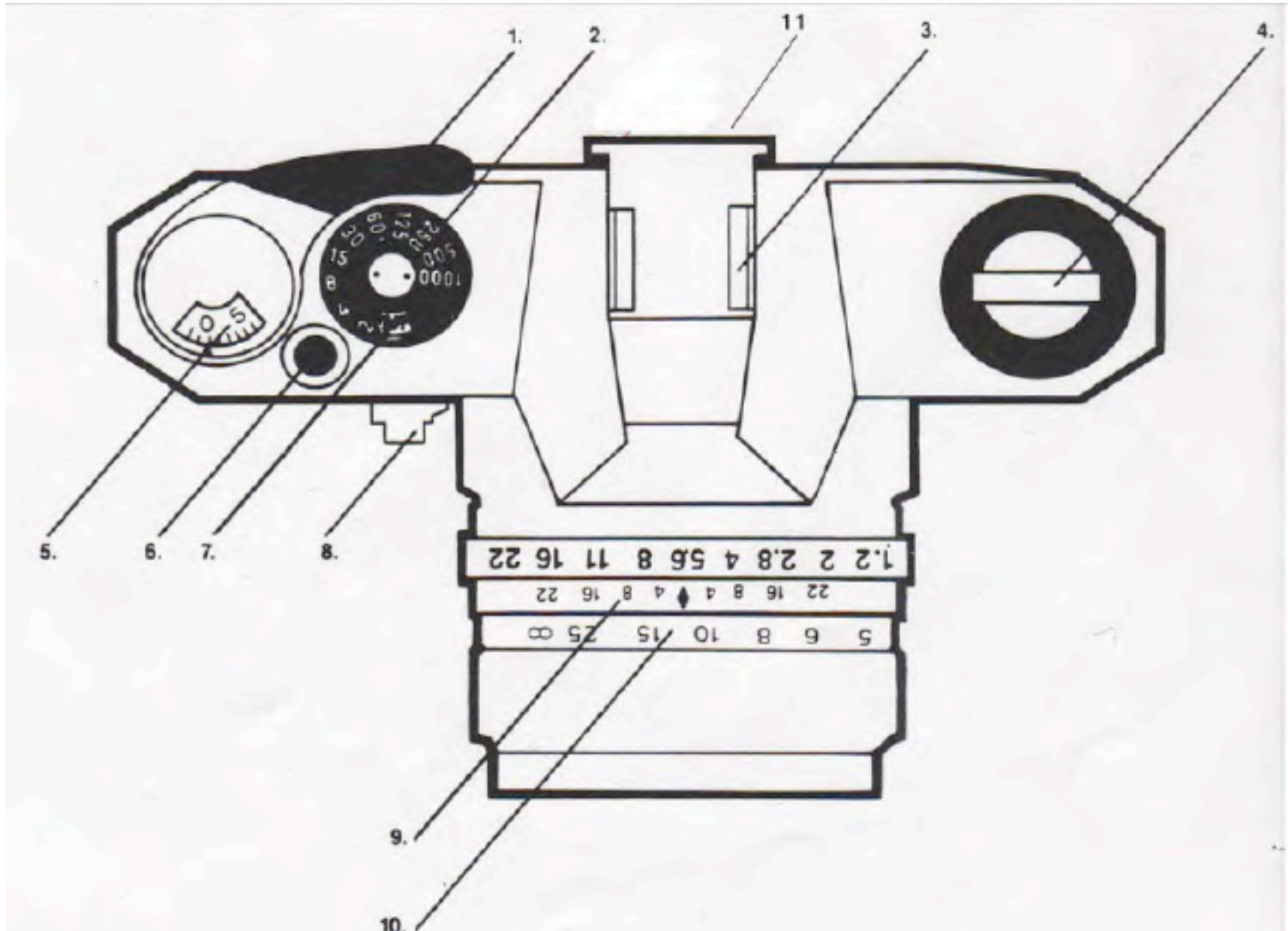
- What are the 3 basic things I need to know how to control on a manual SLR camera when I take a photograph?

By Marcine Linder



# SLR side view

# SLR top view

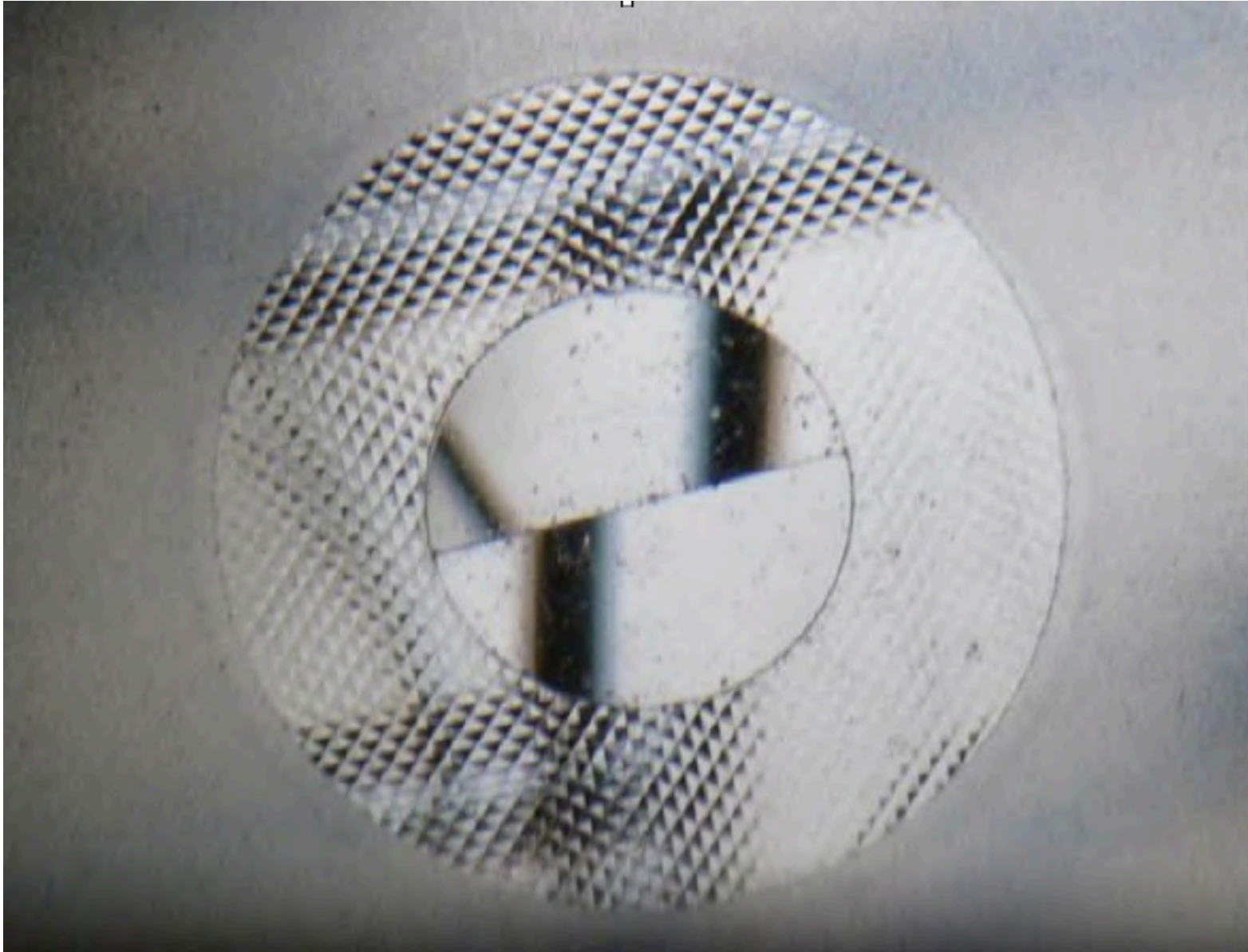


What are the **3 most basic things** that must be correctly controlled by a photographer taking a picture **with a manual SLR camera** in order for the picture to turn out?

# 1: Focus

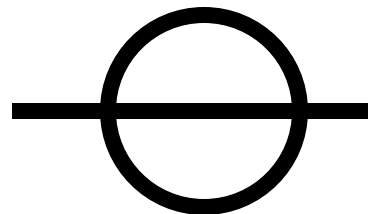


# 1: Focus: method A: the Viewfinder



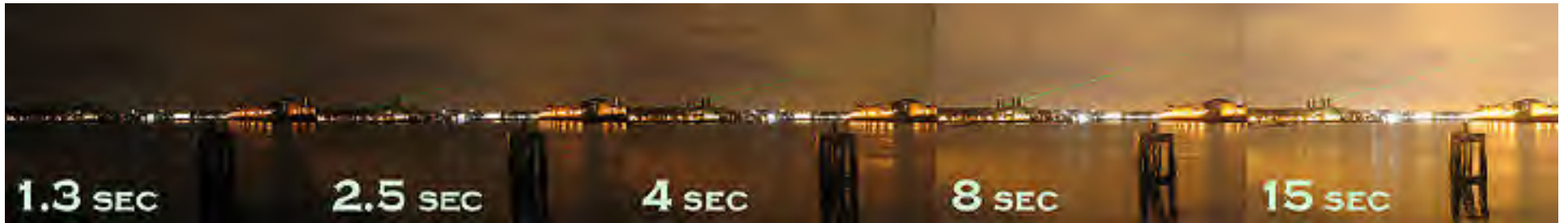
focus using the ground glass and split screen in the viewfinder as a guide

# Focus Method B: the lens barrel, measuring tape and film plane symbol



film plane symbol

# 2: Exposure





# Overexposed Images

(too much light)



## Overexposed images are

- glaringly light
- few details are visible
- the full range of tones (from the lightest to the darkest) are not visible

(only **highlights** and some **midtone**s)

# Underexposed Images

(not enough light)



## Underexposed images are

- dark
- few details are visible
- the full range of tones (from the lightest to the darkest) are not visible (only **shadows** and some **midtone**s)

# Correctly Exposed Images



## Correctly exposed images

- many details are visible
- the full range of tones (from the lightest to the darkest) are visible

# How Exposure adds up

How many ways can you combine two numbers to add up to 10?

$$1 + 9$$

$$2 + 8$$

$$3 + 7$$

Shutter speed

$$4 + 6$$

aperture

$$5 + 5$$

$$6 + 4$$

$$7 + 3$$

$$8 + 2$$

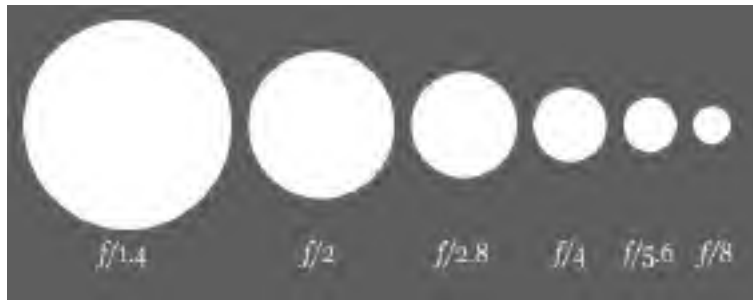
$$9 + 1$$

# How to Control Exposure

**Exposure** is determined by two factors that control the amount of light that reaches the film (or chip in a digital camera):

1) **Shutter speed** = how quickly the shutter in the camera opens and closes ex. 1/1000 second vs. 1/30 second (4 “stops” or 32x as much as 1/1000)

2) **Aperture** = the size of the opening in the lens: ex. f 8 creates a small opening that lets in a small amount of light, f 1.4 creates a large opening that lets in a large amount of light (5 “stops” or 64x as much as f8)

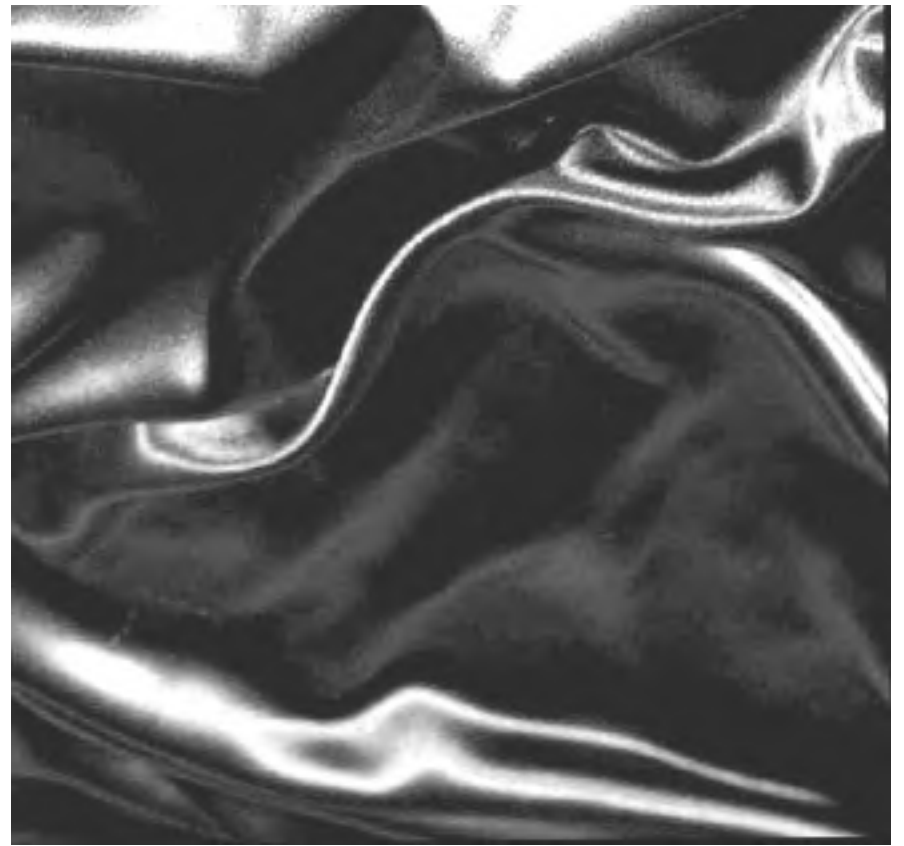


How much does exposure  
Increase when a stop is added?  
How much does exposure decrease  
When a stop is taken away?

# When Light Meters are Fooled



black satin as it looks in life



black satin as seen by a light meter

# When Light Meters are Fooled

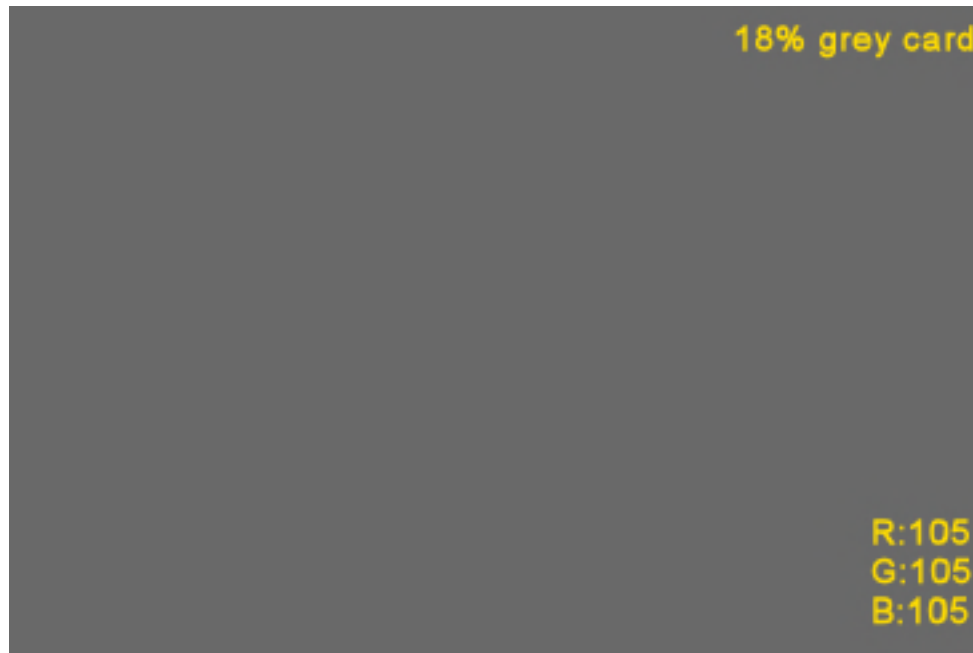


snow as it looks in life



snow as seen by a light meter

# The 18% Grey Card



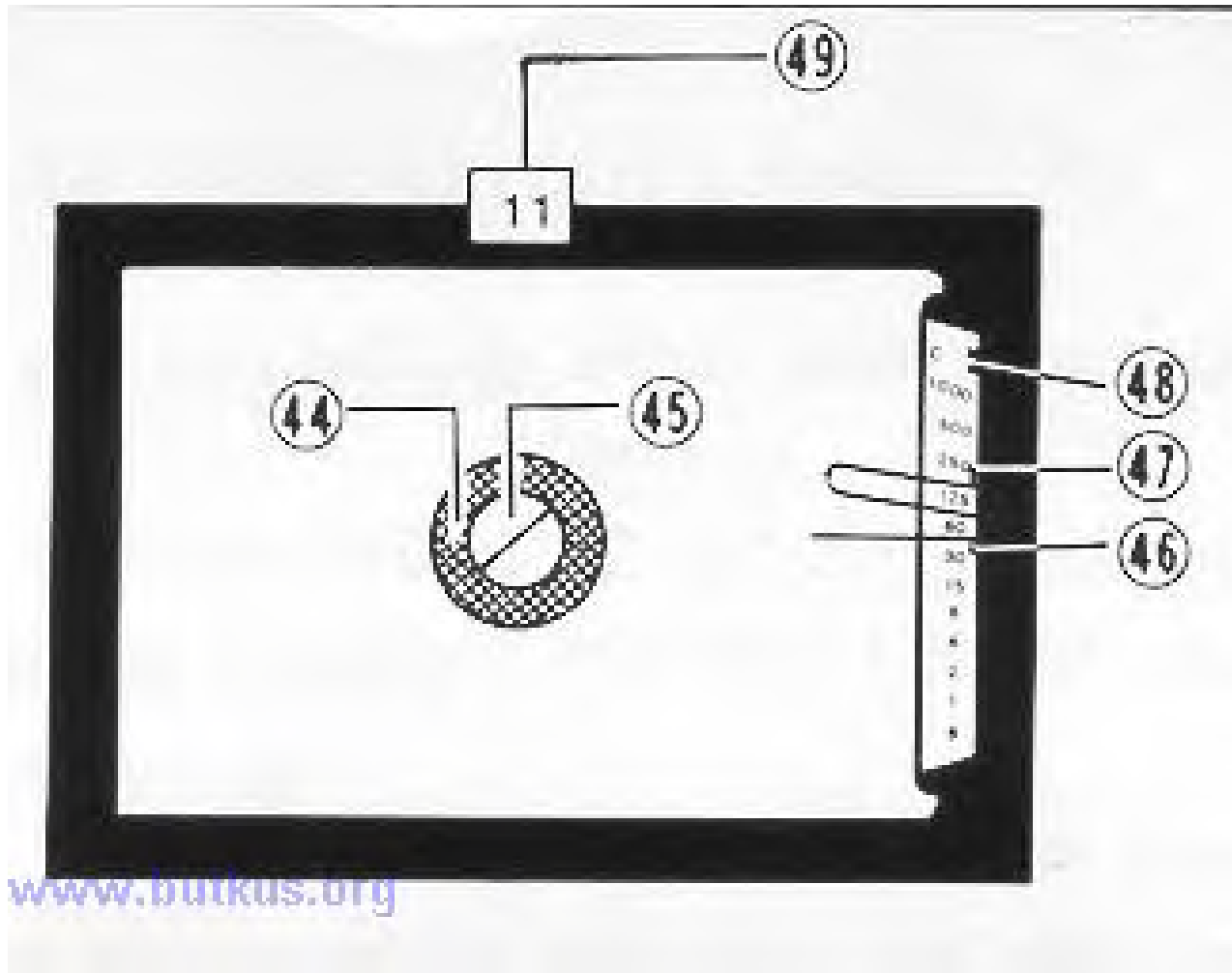
Some scenes such as snowy landscapes, beaches, black or white satin can fool light meters into giving incorrect readings. **18% grey cards** are used to help photographers correctly measure exposure using their cameras' built in light meters

The **palms of human hands** (all races) and **green leaves, grass** all register as **18% grey** on a negative when properly exposed

Light meters are designed to give exposure readings that will create a **value** of **18% grey** on a negative.



# Exposure



Typical manual SLR viewfinder: to the right is the light meter. In this camera when the thick needle (47) and the thin needle (46) line up the exposure setting (according to the meter) is correct

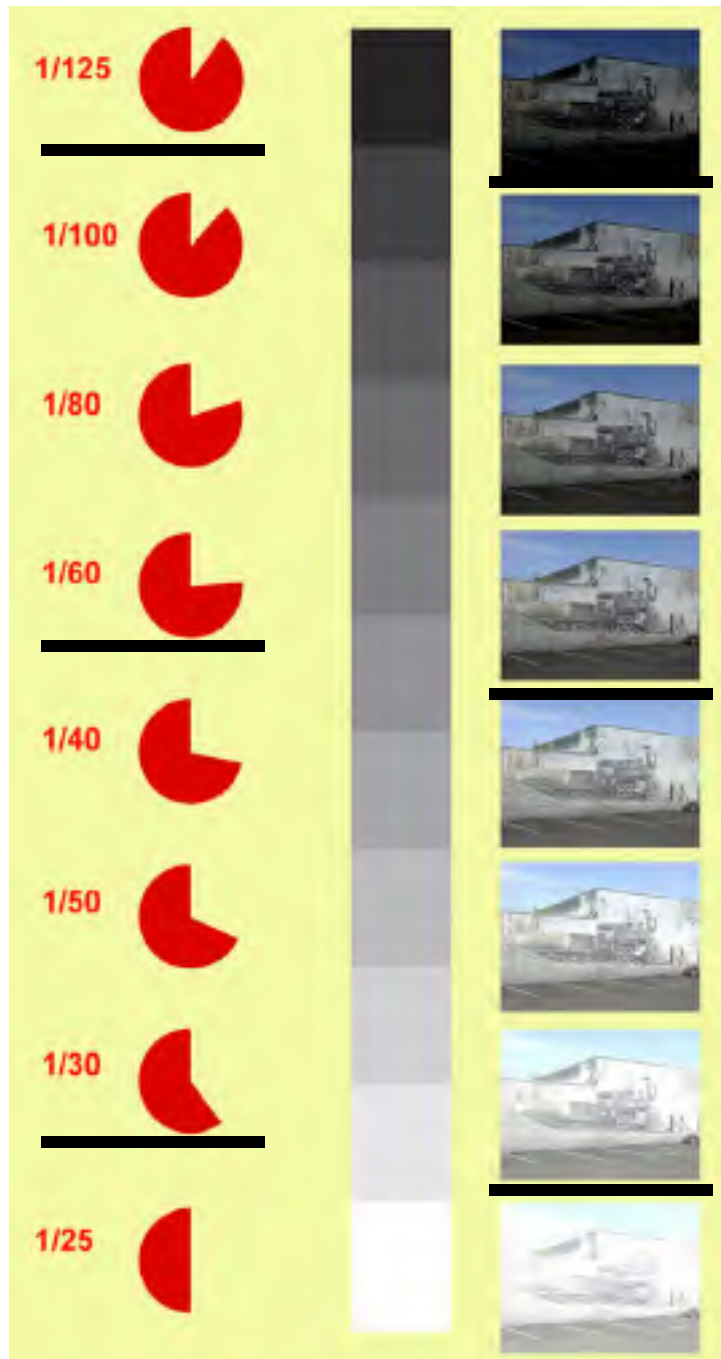
# Exposure

The ISO of the film chosen (or setting chosen on a digital camera) will determine how much light is needed to take a picture.

- **100 ISO** slow speed, ideal for bright sun
- **400 ISO** medium speed, ideal for indoor and outdoor shots
- **800 ISO** fast speed, ideal for fairly low light situations
- **1600 ISO** very fast speed, ideal for VERY low light situations

*Be sure to **set the ISO speed** on your manual SLR camera for the film you have loaded. If you do not, your light meter's exposure readings will be **incorrect***

\*\*\*Other factors must also be considered when choosing an ISO speed but you will learn about those later! For the moment, use these as a guide\*\*\*



# Exposure Scale

To the right is a sample exposure scale showing from the top down an underexposed image (not enough light) to an overexposed image.

Note: not all of these shutter speeds exist on manual SLRs - some of these speeds (1/25s, 1/40s, 1/50s, 1/80s, 1/100s became possible with electronic film and later digital SLRs)

# 3: Composition



How would you describe the different compositions in each of these photos?

(use the elements and principals of art in your answer)

