Name _____   Date _____
Honors Physics   Reflection/Refraction WS#3
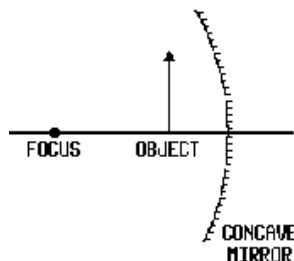Period _____   Mrs. Nadworny

Mirrors

Directions: Read online textbook pages 530 – 542. Complete the following problems.

1. The diagram below represents an object in front of a concave mirror. The image of the object formed by the mirror is


(A) real and smaller than the object   (C) virtual and larger than the object
(B) real and larger than the object   (D) virtual and smaller than the object

2. A searchlight consists of a high-intensity light source at the focal point of a concave (converging) mirror. The light reflected from the mirror will

(A) converge to a point   (C) diverge uniformly
(B) form a nearly parallel beam   (D) scatter in all directions

3. An object is placed in front of a convex (diverging) mirror. The image of that object will be

(A) virtual and smaller   (C) real and smaller
(B) virtual and larger   (D) nonexistent

4. When the calculated image distance for an image formed using a curved mirror has a negative value, the image must be

(A) real   (B) virtual   (C) reduced   (D) enlarged

5. An arrow is placed in front of the convex **mirror** as shown below. Locate the image of the arrow by means of a well- drawn ray diagram. Use a straight edge for all rays and clearly indicate the image.
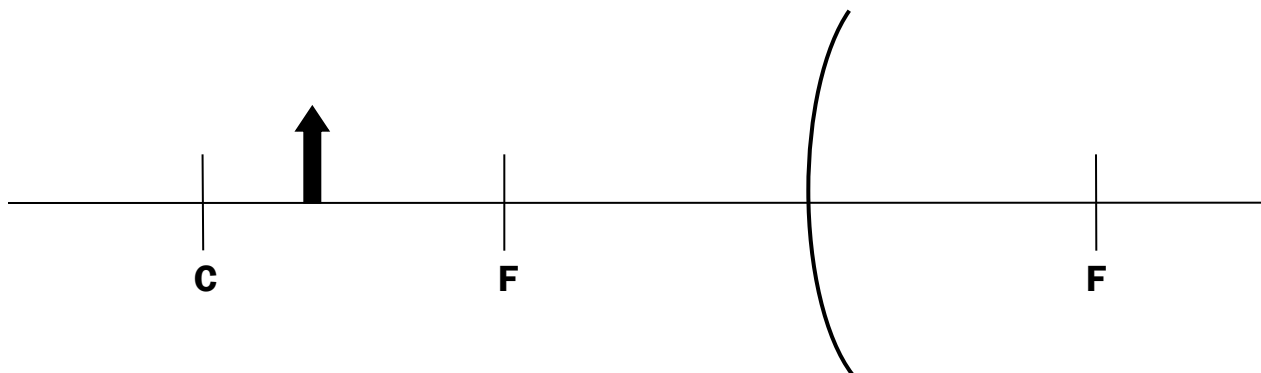
6. A convex security mirror in a convenience store has a radius of curvature of 1.05 m. A 1.85 m tall person is standing 6.25 m from the mirror. Calculate the location and size of the image.

7. An arrow is placed in front of the concave **mirror** as shown below. Locate the image of the arrow by means of a well- drawn ray diagram. Use a straight edge for all rays and clearly indicate the image.

C   F   F
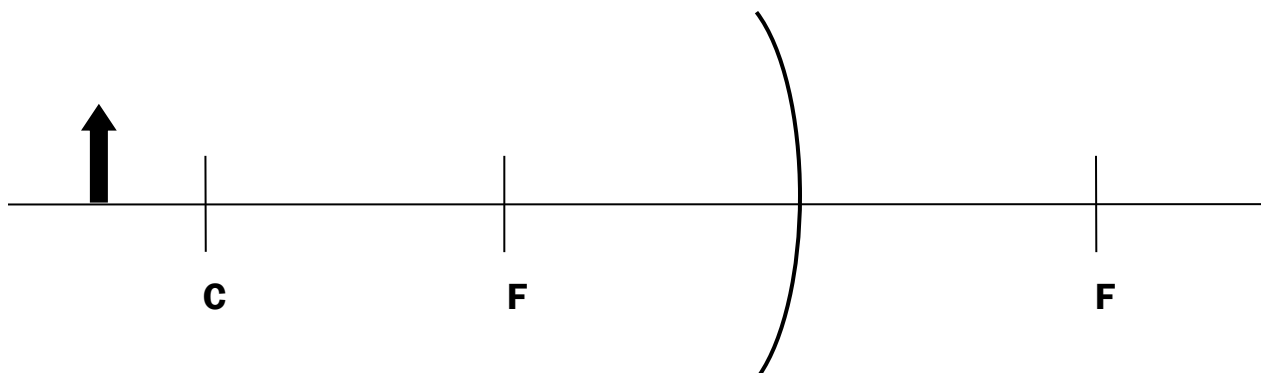
8. A pencil is placed 3.0 cm in front of a concave mirror, whose focal length is 7.0 cm. Calculate where the image will be located (in centimeters) and the magnification of the pencil.

Answers in size order: 0.143, 0.484, 1.8, 5.3