**Physics 30 – Lesson 7**

## Optics – Curved Mirrors

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**Practice problems**

1)

b) inverted, real, smaller

a)



c)



2)

b) inverted, real, smaller

a)



c)



Note that f is (–) for a diverging/convex mirror

a) The only mirror that can produce an inverted (i.e. real) image is a **converging** or **concave** mirror. In addition, note that the focal length calculation below yields a positive answer (i.e. converging mirror).

3)



b)

**Assignment**

1)

C

f

Virtual, Erect, Smaller

A)

/2

C

f

Virtual, Erect, Larger

B)

/2

C)

f

C

No Image Forms

/2

D)

f

C

/2

Real, Inverted, Larger

E)

f

C

Real, Inverted, Same Size

/2

f

C

Real, Inverted, Smaller

F)

/2

2)

c) inverted, real, larger

a)



/6

b)



3)

c) erect, virtual, smaller



a)

/6

b)



4)

b) concave (f is positive)



/5

5)

b) concave (f is positive)



/5

6)

b) convex (f is negative)



/5

7)

b.



a.



/8



d.



c.



8)



/4

9)



/4

10)



/4