1) Which **two** of the following diverges light rays? (1 mark)

A) Plane mirror

B) Concave mirror

C) Convex mirror

D) Convex lens

2) Circle ALL of the statements that are true of a **virtual** image (2 marks, -0.5marks penalty for each incorrect circle)

A) Virtual images can be projected onto a sheet of paper.

B) Virtual image can be either upright or inverted.

C) Virtual images are not real; thus you could never see them when looking in a mirror.

D) Virtual images can be formed by concave, convex, and plane mirrors.

E) Virtual images can be magnified in size, reduced in size or the same size as the object.

F) Virtual images result when the reflected light rays diverge.

G) For mirrors, virtual images are always located behind the mirror.

3) Why can't we see a clear image of an object located at the focal point of a concave mirror? (1 mark)

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4) Draw the ray body diagram of an arrow object located 2.0 cm away from a concave mirror with a focal point of 3.5cm. Locate and draw the image produced. Describe the qualities of the image using SALT. (8 marks)

**S: A: L: T:**

5) Draw the ray body diagram of an arrow object located 1.5 cm away from a concave lens with a focal point of 2.0cm. Locate and draw the image produced. Describe the qualities of the image using SALT. (8 marks)

**S: A: L: T:**

6) The magnification of an image is +0.20 for a lens. The object is placed 8.0cm away from this lens. Find the focal point of this lens. Is this a concave or convex lens? (5 marks)