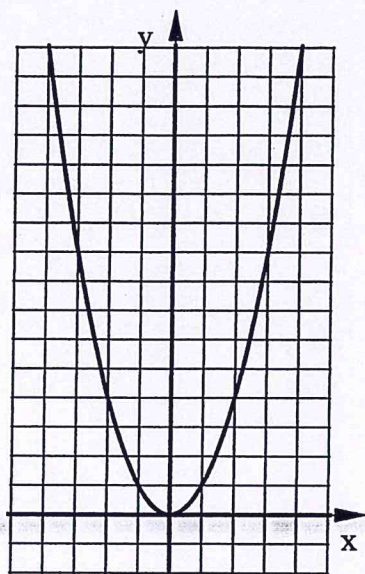The graph shows $y = x^2$

1. Find ALL possible values of x or y so that the point is on the graph.

a) (2,_____)   b) (3,_____)   c) (−3,_____)

d) (5,_____)   e) (_____,4)   f) (_____,−16)

g) (_____,7)   h) (_____,5)

2. Write a precise set of instructions that show how to find an approximate value of $\sqrt{13}$ using the graph.

3. **Without using a calculator** determine between which two consecutive integers each square root would be located.

a) $\sqrt{43}$ is between _____ and _____

b) $\sqrt{19}$ is between _____ and _____

c) $\sqrt{118}$ is between _____ and _____

d) $\sqrt{78}$ is between _____ and _____

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The graph shows $y = x^2$

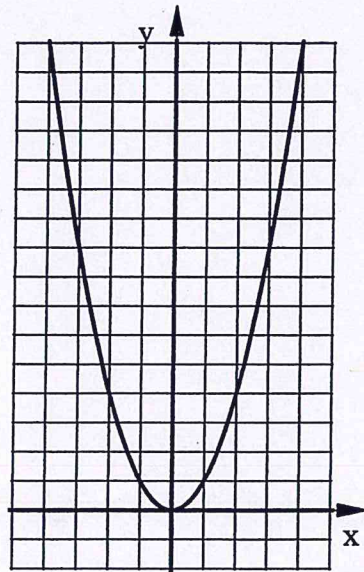1. Find ALL possible values of x or y so that the point is on the graph.

a) $(2, \underline{4})$ b) $(3, \underline{9})$ c) $(-3, \underline{9})$

d) $(5, \underline{25})$ e) $(\underline{\pm 2}, 4)$ f) $(\underline{}, -16)$ NO POSSIBLE VALUES

g) $(\underline{\pm\sqrt{7}}, 7)$ h) $(\underline{\pm\sqrt{5}}, 5)$

2. Write a precise set of instructions that show how to find an approximate value of $\sqrt{13}$ using the graph.

Draw the horizontal line $y = 13$. where this line intersects the graph of $y = x^2$ draw a vertical line so that it intersects the x-axis. These points on the x-axis represent $\pm\sqrt{13}$.

3. **Without using a calculator** determine between which two consecutive integers each square root would be located.

a) $\sqrt{43}$ is between $\underline{6}$ and $\underline{7}$

b) $\sqrt{19}$ is between $\underline{4}$ and $\underline{5}$

c) $\sqrt{118}$ is between $\underline{10}$ and $\underline{11}$

d) $\sqrt{78}$ is between $\underline{8}$ and $\underline{9}$

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