

f r q



0	1	2
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The student response includes both of these criteria.

- Solution to $g(x) = 3$
- Solution to $h(x) = \frac{\pi}{4}$

Model Solution

(i)

$$g(x) = 3$$

$$\log_5(4x - 2) = 3$$

$$5^3 = 4x - 2$$

$$x = \frac{127}{4}$$

(ii)

$$h(x) = \frac{\pi}{4}$$

$$\sin^{-1}(8x) = \frac{\pi}{4}$$

$$8x = \sin\left(\frac{\pi}{4}\right)$$

$$8x = \frac{1}{\sqrt{2}}$$

$$x = \frac{1}{8\sqrt{2}}$$

Part B

Select a point value to view scoring criteria, solutions, and/or examples to score the response.



0	1	2
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The student response includes both of these criteria.

- Expression for $j(x)$
- Expression for $k(x)$