✖

Neural Networks: Representation

✓ **5/5** points earned (100%)

Quiz passed!

Back to Week 4

Be Recognized for Your Achievements.
"Course Certificates give you the recognition you need to get the job, the material gives you the skills to do the job. It makes you look more valuable because you are more valuable." - Peter B., USA, Software Developer

Showcase Your Accomplishment! Earn Your Course Certificate! $79 USD ❯
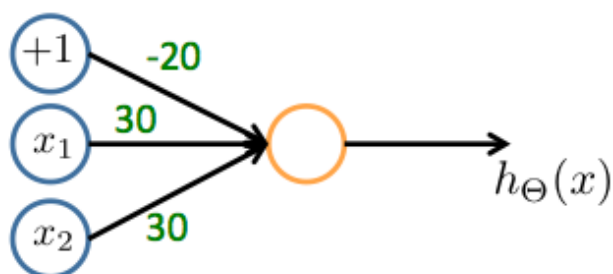

✓ 1 / 1
points

1.
Which of the following statements are true? Check all that apply.

✓ 1 / 1
points

2.
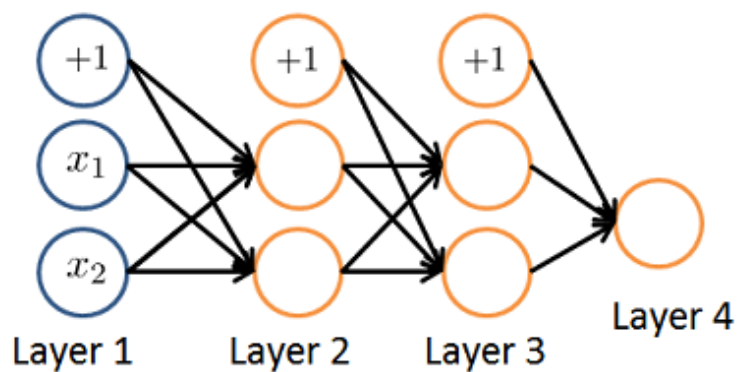
Consider the following neural network which takes two binary-valued inputs $x_1, x_2 \in \{0, 1\}$ and outputs $h_\Theta(x)$. Which of the following logical functions does it (approximately) compute?
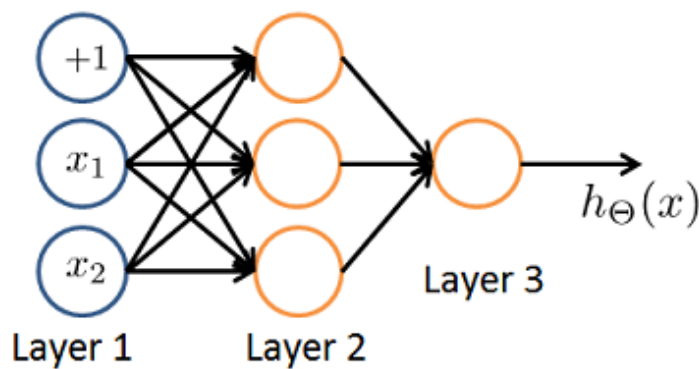

1 / 1
points

3.

Consider the neural network given below. Which of the following equations correctly computes the activation $a_1^{(3)}$? Note: $g(z)$ is the sigmoid activation function.

1 / 1
points

4.

You have the following neural network:

You'd like to compute the activations of the hidden layer $a^{(2)} \in \mathbb{R}^3$. One way to do so is the following Octave code:

```
% Theta1 is Theta with superscript "(1)" from lecture
% ie, the matrix of parameters for the mapping from layer 1 (input) to layer 2
% Theta1 has size 3x3
% Assume 'sigmoid' is a built-in function to compute 1 / (1 + exp(-z))

a2 = zeros (3, 1);
for i = 1:3
  for j = 1:3
    a2(i) = a2(i) + x(j) * Theta1(i, j);
  end
  a2(i) = sigmoid (a2(i));
end
```

You want to have a vectorized implementation of this (i.e., one that does not use for loops). Which of the following implementations correctly compute $a^{(2)}$? Check all that apply.

✔   1 / 1
       points

5.