

Started on	Thursday, 5 April 2018, 4:28 PM PDT
State	Finished
Completed on	Thursday, 5 April 2018, 4:32 PM PDT
Time taken	4 mins 18 secs
Grade	0.87 out of 1.00 (87%)

Question 1

Which of the following holds for f, g ; select all options that apply: $f = n - 100, g = n - 200$.

Partially correct

0.07 points out of 0.20

Select one or more:

- a. $f = O(g)$
- b. $f = \Omega(g)$ ✓
- c. $f = \Theta(g)$

Your answer is partially correct.

You have correctly selected 1.

The correct answers are: $f = O(g), f = \Omega(g), f = \Theta(g)$

Question 2

Solution to the recurrence $T(n) = 2T(n/4) + O(n)$ is:

Correct

0.20 points out of 0.20

Select one or more:

- a. $O(n \log n)$ ✓
- b. $O(n^2)$ ✓
- c. $\Omega(n \log n)$
- d. $O(n)$ ✓

Your answer is correct.

The correct answers are: $O(n \log n), O(n), O(n^2)$

Question 3

Solution to the recurrence $T(n) = 5T(n/4) + n$ is:

Correct

0.20 points out of 0.20

Select one:

- a. $\Omega(n^2)$
- b. $\Omega(n^{1.5})$
- c. $\Omega(n^{1.33})$
- d. $\Omega(n^{1.1})$ ✓

Your answer is correct.

The correct answer is: $\Omega(n^{1.1})$

Question 4

Which of the following holds for f, g ; select all options that apply: $f = \sqrt{n}, g = n^{1/3}$.

Correct

0.20 points out of 0.20

Select one or more:

- a. $f = O(g)$
- b. $f = \Theta(g)$
- c. $f = \Omega(g)$ ✓

Your answer is correct.

The correct answer is: $f = \Omega(g)$

Question 5

Correct

0.20 points out
of 0.20Solution of the recurrence $T(n) = 13 T(n/3) + n^3$ is:

Select one:

- a. $O(n^3)$ ✓
- b. $O(n^{(2.67)})$
- c. $O(n^2)$
- d. $O(n^{(13/3)})$

Your answer is correct.

The correct answer is: $O(n^3)$