

Act. 3.6

a) $T(n) = 3T(n/2) + n^5$

$a=3$

$b=2$

$d=5$

$T(n) = O(n^5)$

b) $T(n) = 4T(n/3) + n$

$a=4$

$b=3$

$d=1$

$T(n) = O(n^{\log_3 4})$

c) $T(n) = 8T(n/3) + n^2$

$a=8$

$b=3$

$d=2$

$T(n) = O(n^2)$

d) $T(n) = 8T(n/3) + n$

$a=8$

$b=3$

$d=1$

$T(n) = O(n^{\log_3 8})$