**Case 1:**

**int** main(**void**) {

fork();

std::cout << "This is process PID: " << (**long**)getpid() << std::endl;

**return** 0;

}

**Output:**

This is process PID: 56265

This is process PID: 56267

**Case 2:**

**int** main(**void**) {

fork(); fork();

std::cout << "This is process PID: " << (**long**)getpid() << std::endl;

**return** 0;

}

**Output:**

This is process PID: 56314

This is process PID: 56317

This is process PID: 56316

This is process PID: 56318

**Case 3:**

**int** main(**void**) {

fork(); fork(); fork();

std::cout << "This is process PID: " << (**long**)getpid() << std::endl;

**return** 0;

}

**Output:**

This is process PID: 56343

This is process PID: 56348

This is process PID: 56347

This is process PID: 56350

This is process PID: This is process PID: 56346

56351

This is process PID: 56349

This is process PID: 56352

**Case 4:**

**int** main(**void**) {

pid\_t pid, pid2;

**if** ((pid = fork()) && (pid2 = fork())) { fork(); }

**if** ((pid = fork()) && (pid2 = fork())) { fork(); }

**if** ((pid = fork()) && (pid2 = fork())) { fork(); }

std::cout << "Process PID = " << (**long**)getpid() << std::endl;

**return** 0;

}

**Output:**

Process PID = 56788

Process PID = 56794

Process PID = 56793

Process PID = Process PID = 5679956798

Process PID = 56796

Process PID = Process PID = 56802

56785

Process PID = 56804

Process PID = 56805

Process PID = 56801

Process PID = 56808

Process PID = 56807

Process PID = 56803

Process PID = Process PID = Process PID = 56810

56811

56790

Process PID = 56787

Process PID = 56791

Process PID = 56812

Process PID = 56792

Process PID = 56783

Process PID = 56816

Process PID = 56817

Process PID = 56819Process PID =

56815

Process PID = 56820

Process PID = 56789

Process PID = Process PID = 5681356821

Process PID = 56822

Process PID = 56800

Process PID = 56818

Process PID = Process PID = 56825

56795

Process PID = 56826

Process PID = 56814

Process PID = 56823

Process PID = 56827

Process PID = 56824

Process PID = Process PID = 5682956831

Process PID = 56830

Process PID = 56828

Process PID = 56809

Process PID = 56784

Process PID = 56806

Process PID = 56786

Process PID = Process PID = 56833

56834

Process PID = 56835

Process PID = 56832

Process PID = 56836

Process PID = 56837

Process PID = 56797

Process PID = 56838

Process PID = 56840

Process PID = 56841Process PID =

56842

Process PID = Process PID = 56839

56844

Process PID = Process PID = 56843

56845

Process PID = 56781

**Case 5:**

**int** main(**void**) {

**for** (int i = 1; i <= 5; i++) {

fork();

}

std::cout << "Process PID = " << (**long**)getpid() << std::endl;

**return** 0;

}

**Output:**

Process PID = 56686

Process PID = 56698

Process PID = 56693

Process PID = 56691

Process PID = 56697

Process PID = 56689

Process PID = 56699

Process PID = 56702

Process PID = 56700

Process PID = 56692

Process PID = 56701

Process PID = 56695

Process PID = 56708

Process PID = 56694

Process PID = 56696

Process PID = 56709

Process PID = 56710

Process PID = 56711

Process PID = 56690

Process PID = 56712

Process PID = 56713

Process PID = 56706

Process PID = 56714

Process PID = 56703

Process PID = 56707

Process PID = 56715

Process PID = 56716

Process PID = 56705

Process PID = 56717

Process PID = 56704

Process PID = 56718

Process PID = 56719