Lecture 3 - C++ Pointer Quiz

Write down the output from each of the following programs:

Q1.

```
void fun(int x)
{
    x = 30;
}

int main()
{
  int y = 20;
  fun(y);
  std::cout << y;
}
```

Q2.

```
void fun(int *ptr)
{
    *ptr = 30;
}

int main()
{
  int y = 20;
  fun(&y);
  std::cout << y;
}
```

Q3.

```
int main()
{
    int *ptr;
    int x;

    ptr = &x;
    *ptr = 0;

    std::cout << " x = " << x << std::endl;
    std::cout << *ptr = << *ptr << std::endl;

    *ptr += 5;
    std::cout << " x = " << x << std::endl;
    std::cout << *ptr = << *ptr << std::endl;

    (*ptr)++;
    std::cout << " x = " << x << std::endl;
    std::cout << *ptr = << *ptr << std::endl;

}
```

Q4.

```
int main()
{
    float arr[5] = {12.5, 10.0, 13.5, 90.5, 0.5};
    float *ptr1 = &arr[0];
    float *ptr2 = ptr1 + 3;

    std::cout << *ptr2 << endl;
    std::cout << (ptr2 – ptr1);

   return 0;
}
```

Q5.

```
void q5(int *t_px, int *t_py)
{
   *t_px = *t_px - *t_py;
   *t_py = *t_px + *t_py;
   *t_px = *t_py - *t_px;
}


int main()
{
  int x = 10, y = 20;
  q5(x, y);
  std::cout << x << std::endl;
  std::cout << y << std::endl;
}
```