

```

a) #include <stdio.h>
#include <math.h>

#define PI 3.142

int main() {
    float radius, height, volume, surface_area;

    // Prompt the user to enter the radius of the cylinder
    printf("Enter the radius of the cylinder: ");
    scanf("%f", &radius);

    // Prompt the user to enter the height of the cylinder
    printf("Enter the height of the cylinder: ");
    scanf("%f", &height);

    // Calculate the volume of the cylinder
    volume = PI * radius*radius*2 * height;

    // Calculate the surface area of the cylinder
    surface_area = 2 * PI * radius*radius+ 2 * PI * radius * height;

    // Display the volume and surface area of the cylinder
    printf("The volume of the cylinder is: %.2f\n", volume);
    printf("The surface area of the cylinder is: %.2f\n", surface_area);

    return 0;
}

```

```

a)
#include <stdio.h>

int main() {
    float weight, height, bmi;

```

```
// Prompt the user to enter weight in kilograms
printf("Enter your weight in kilograms: ");
scanf("%f", &weight);

// Prompt the user to enter height in meters
printf("Enter your height in meters: ");
scanf("%f", &height);

// Calculate BMI
bmi = weight / (height * height);

// Display the calculated BMI
printf("Your BMI is: %.2f\n", bmi);

return 0;
}
```

b)

```
#include <stdio.h>
```

```
int main() {
    float salary, bonus = 0.0;
    int years_of_service;

    // Prompt the user to enter their salary
    printf("Enter your salary: ");
    scanf("%f", &salary);

    // Prompt the user to enter their years of service
    printf("Enter your years of service: ");
    scanf("%d", &years_of_service);
```

```
// Check if the employee's years of service is more than 5 years
if (years_of_service > 5) {
    // Calculate the bonus amount (5% of the salary)
    bonus = 0.05 * salary;
}

// Display the net bonus amount
printf("Your net bonus amount is: %.2f\n", bonus);

return 0;
}
```

