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29878

Practical 04

1)

```
#include <stdio.h>

int main() {
    int number;

    printf("Enter an integer: ");
    scanf("%d", &number);

    if (number % 2 == 0) {
        printf("%d is even.\n", number);
    } else {
        printf("%d is odd.\n", number);
    }

    return 0;
}
```

Re-write the above program using a switch statement instead of an If-Else statement!

```
#include <stdio.h>

int main() {
    int number;

    printf("Enter an integer: ");
    scanf("%d", &number);

    switch (number % 2) {
        case 0:
            printf("%d is even.\n", number);
            break;
        case 1:
            printf("%d is odd.\n", number);
            break;
    }

    return 0;
}
```

```

        printf("%d is odd.\n", number);
        break;
    }

    return 0;
}

```

2)

```

#include <stdio.h>

int main() {
    int choice;
    float num1, num2, result;

    printf("Menu:\n");
    printf("1. Addition\n");
    printf("2. Subtraction\n");
    printf("3. Multiplication\n");
    printf("4. Division\n");
    printf("Enter your choice (1-4): ");
    scanf("%d", &choice);

    printf("Enter two numbers: ");
    scanf("%f %f", &num1, &num2);

    switch (choice) {
        case 1:
            result = num1 + num2;
            printf("Result: %.2f\n", result);
            break;
        case 2:
            result = num1 - num2;
            printf("Result: %.2f\n", result);
            break;
        case 3:
            result = num1 * num2;
            printf("Result: %.2f\n", result);
            break;
    }
}

```

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        case 4:
            if (num2 != 0) {
                result = num1 / num2;
                printf("Result: %.2f\n", result);
            } else {
                printf("Error: Division by zero is not allowed.\n");
            }
            break;
        default:
            printf("Invalid choice.\n");
    }
}

```

3)

```

#include <stdio.h>

#define PI 3.14159

int main() {
    int choice;
    float radius, result;

    printf("Menu:\n");
    printf("1. Calculate Circumference of a Circle\n");
    printf("2. Calculate Area of a Circle\n");
    printf("3. Calculate Volume of a Sphere\n");
    printf("Enter your choice (1-3): ");
    scanf("%d", &choice);

    printf("Enter the radius: ");
    scanf("%f", &radius);

    switch (choice) {
        case 1:
            result = 2 * PI * radius;
            printf("Circumference: %.2f\n", result);
            break;
        case 2:
            result = PI * radius * radius;

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        printf("Area: %.2f\n", result);
        break;
    case 3:
        result = (4.0 / 3.0) * PI * radius * radius * radius;
        printf("Volume: %.2f\n", result);
        break;
    default:
        printf("Invalid choice.\n");
}

return 0;
}

```

4)

```

#include <stdio.h>

int main() {
    char vowel;

    printf("Enter a character: ");
    scanf("%c", &vowel);

    switch (vowel)
    {
        case 'a':
            printf("vowel\n");break;
        case 'e':
            printf("vowel\n");break;
        case 'i':
            printf("vowel\n");break;
        case 'o':
            printf("vowel\n");break;
        case 'u':
            printf("vowel\n");break;
        default:
            printf("not a vowel!\n");break;
    }
}

```

5)

```
#include <stdio.h>

int main() {
    int month;

    printf("Enter the month number (1-12): ");
    scanf("%d", &month);

    switch (month) {
        case 1:
            printf("January has 31 days.\n");break;
        case 2:
            printf("February has 28 days.\n");break;
        case 3:
            printf("March has 31 days.\n");break;
        case 4:
            printf("April has 30 days.\n");break;
        case 5:
            printf("May has 31 days.\n");break;
        case 6:
            printf("June has 30 days.\n");break;
        case 7:
            printf("July has 31 days.\n");break;
        case 8:
            printf("August has 31 days.\n");break;
        case 9:
            printf("September has 30 days.\n");break;
        case 10:
            printf("October has 31 days.\n");break;
        case 11:
            printf("November has 30 days.\n");break;
        case 12:
            printf("December has 31 days.\n");break;
        default:
            printf("Invalid month number.\n");break;
    }

    return 0; }
```

