

```

import java.awt.*;

/**
 * Title      : Cat.java
 * Description: This class contains the definition of a cat.
 * Copyright  : Copyright (c) 2006-2019
 * @author    Laurissa Tokarchuk
 * @version   1.0
 * @author    Paula Fonseca
 * @version   1.3
 */
public class Cat {
    // Declaration of instance variables.
    String name, furType;
    boolean tail;
    Color colour;
    int speed;

    /** This is the sleep method for the cat. It dictates the number of
     *  minutes the cat sleeps.
     *  @param duration The number of minutes to sleep.
     */
    public void sleep(int duration) {
        System.out.println("I am sleeping for " + duration + " minutes.");
    }

    /** This method allows the cat to run. The distance (in a straight line)
     *  the cat runs is dependent on how long the cat runs and whether or not
     *  it is running in a zigzag.
     *  @param duration The number of minutes to run.
     *  @param zigzag Whether to run in a zigzag pattern.
     *  @return int Number of metres ran.
     */
    public int run(int duration, boolean zigzag) {

```

```
System.out.println("I am running "
    + (zigzag? "in a zigzag" : "straight")
    + " for "
    + duration
    + " minutes.");
int distanceRun = duration * speed; // assuming speed is metres per minute
if (zigzag) {
    /* When in zigzag, distance is 1/3 of what it would have been if
       the cat was going straight. */
    return distanceRun/3;
}
else return distanceRun;
}
```