25_colours.py

```
"""Instead of using ready made colours like 'red', 'yellow', etc you can create your
own color from three numbers. The numbers must be between 0-255 and represent
how much red, green and blue to mix together, examples:
"""
# my_colour = (0,0,0) # makes black
# my_colour = (255,255,255) # makes white

red_amount = 0
green_amount = 0
blue_amount = 0

def draw():
    my_colour = (red_amount, green_amount, blue_amount)
    screen.fill(my_colour)

# This function makes the colour change every frame
# Remove it if you just want to see a static colour.
def update():
    global red_amount
    red_amount += 1
    red_amount = red_amount % 255


""" TODO
Change the green and blue amounts to make different colours
Can you make gray?
Make random colours
"""
```

26_fullscreen_mode.py

```
"""Add these lines to any game to enable fullscreen mode
Then press F to go fullscreen, ESCAPE to quit.
"""
import pygame

WIDTH = 500
HEIGHT = 500

alien = Actor("alien")

def draw():
    screen.clear()
    alien.draw()

def update():
    if keyboard.f:
        pygame.display.set_mode((WIDTH, HEIGHT), pygame.FULLSCREEN)
    if keyboard.escape:
        exit()
```

27_displaying_text.py

```
"""
Simple game that displays text on screen
"""
WIDTH = 500
HEIGHT = 500

score = 0

def draw():
    screen.clear()
    screen.draw.text(f"Player 1 score: {score}", (0, 0))
    screen.draw.textbox("Hello mum", Rect(50, 50, 200, 200))

# This is another special function that is called by Pygame Zero automatically
# each time a key is pressed. That way player cannot just hold down key!
def on_key_down(key):
    global score
    if key == keys.SPACE:
        score += 1

"""
TODO
Make the score text larger
Add a second player who presses a different key and show their score too
Add text to one of your other games
"""
```

28_timer.py

```
# Pygame can tell us how much time has passed since the last frame
# in a parameter to our update function. We use this to keep a timer.

timer = 0

def update(dt):
    global timer
    timer += dt


def draw():
    screen.clear()
    screen.draw.text(f"Time passed: {timer}", (0, 0))
    if timer > 5:
        screen.draw.textbox("Time's up!", Rect(50, 50, 200, 200))

# TODO
# Make the timer count down, not up.
# Add a timer to one of your other games.
# Add a timer to program 21 that deletes one of the aliens when the timer runs out
#   then starts the timer again.
```

```
"""
Pygame has its own clock which we can use by asking it to call one of our
functions at a certain time, or regularly over and over at an interval.
"""

import random

aliens = []

def add_alien():
    aliens.append(Actor("alien", (random.randint(0,500), random.randint(0,500))))

# call add_alien once, 0.5 seconds from now
clock.schedule(add_alien, 0.5)

# call add_alien over and over again, ever 2 seconds
clock.schedule_interval(add_alien, 2.0)

def draw():
    screen.clear()
    for alien in aliens:
        alien.draw()

"""TODO
Make the aliens appear much faster
Use len(aliens) to print how many aliens there are
When there are too many aliens, stop adding them using this code:
    clock.unschedule(add_alien)
"""
```