# Player B

**EX 1:**

A person just fitted for contact lenses is told to wear them only 2 hours the first day and to increase the amount of time by 20 minutes each day. After how many days will the person be able to wear the contact lenses for 14 hours?

**EX 2:**

On the first day after buying a new big screen TV you watch 80 minutes of TV. Your Mum tells you to reduce in half the amount of time you spend watching each day.
a) How long will you be watching TV on the second day?
b) From which day would you be watching TV for less than 5 minutes?

**EX 3:**

After knee surgery, your trainer tells you to return to your jogging program slowly. He suggests jogging for 12 minutes each day for the first week. Each week thereafter, he suggests that you increase that time by 6 minutes per day. How many weeks will it be before you are able to jog 60 minutes per day?

**EX 4:**

A squirrel is collecting nuts. It collects 5 nuts on the first day of the month, 8 nuts on the second, 11 on the third and so on in an arithmetic progression.
a) How many nuts will it collect on the $20^{th}$ day ?
b) After how many days will it have collected more than 1,000 nuts?

**Player A**

**EX1 :**
Edgar is getting better at math. On his first test, he scores 50 points, then he scores 53, 56, 59, and 62 on his next 4 tests and his scores increase arithmetically thereafter. If he takes 20 tests, how many points will he earn on the last test?

**EX2 :**
The sum of the interior angles of a triangle is 180°, of a quadrilateral is 360° and of a pentagon is 540°. Assuming this pattern continues, find the sum of the interior angles of a dodecagon.

**EX3 :**
You complain that the hot tub in your hotel suite is not hot enough. The hotel tells you that they will increase the temperature by 10% each hour. If the current temperature of the hot tub is 75° F, what will be the temperature of the hot tub after 3 hours, to the nearest tenth of a degree?

**EX4:**
The lottery prize is £15 on Monday, £25 on Tuesday and £35 on Wednesday.
a) How much is the prize on Saturday?
b) How much more is the prize on Thursday than the prize on Monday?

**Player C**

**EX 1:**
A mine worker discovers an ore sample containing 500 mg of radioactive material. It is discovered that the radioactive material has a half life of 1 day. Find the amount of radioactive material in the sample at the beginning of the 7th day.

**EX 2:**
A ball is dropped from a height of 10 m and bounces a height of 7 m. On each successive bounce the height reached is 70% of that before. How many bounces are required for the height of the bounce to be less than 80 cm?

**EX 3:**
Poor Mark! His dog ate his math homework. He remembers that the first three terms of his arithmetic sequence were 4, 8, and 12, and the last two were 356 and 360. How many terms were there in his sequence?

**EX 4:**
A snail is crawling up a wall. The first hour, it climbs 16 inches, the second hour, it climbs 12 inches, and each succeeding hour, it climbs only three-fourths the distance it climbed the previous hour. Assume the pattern continues.

1. How far does the snail climb during the seventh hour ?
2. What is the total distance the snail has climbed in seven hours? Express this total distance with summation notation $\Sigma$.