Response to exercise (oxygen debt)

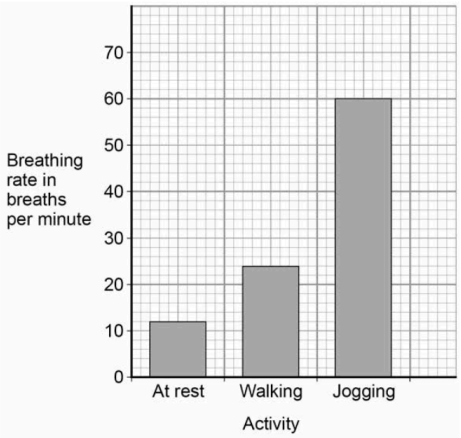
Q1. (2018)

0 4 Exercise can improve health.

A student measured her breathing rate at rest, when walking and when jogging.

Figure 8 shows her results.

Figure 8



A)

0 4 . 1 Compare the breathing rates when doing the **three** different activities.

Use values from **Figure 8** in your answer.

[3 marks]

B)

0 4 . 2 Explain why the breathing rate changes when doing different activities.

[3 marks]

Q2. (2020)

0 1 . 2 Exercise has many health benefits.

Give **two** health benefits of regular exercise.

Do **not** refer to losing body mass in your answer.

[2 marks]

1 _____

_____

2 _____

_____

Q3. (2020)

A scientist investigated the effect of exercise on the breathing rate of four people.

This is the method used.

1. Measure the resting breathing rate.

2. Exercise for 10 minutes.

3. Measure the breathing rate as soon as exercise stops.

4. Record the time taken for the breathing rate to return to the resting rate.

Table 1 shows the results.

Table 1

Person	Resting breathing rate in breaths per minute	Breathing rate after exercise in breaths per minute	Increase in breathing rate in breaths per minute	Time for breathing rate to return to resting rate in minutes
A	12	45	33	5.5
B	10	28	18	4.0
C	11	35	24	6.5
D	13	52	39	10.0

A)

0 1 . 5 The scientist concluded that person **B** was the fittest.

Give **two** reasons that support the scientist's conclusion.

Use **Table 1**.

[2 marks]

1 _____

_____

2 _____

_____

B)

0 1 . 6 Suggest **two** reasons why the scientist's conclusion may **not** be valid.

[2 marks]

1 _____

_____

2 _____

_____

C)

0 1 . 7 Give **two** changes that happen in the body during aerobic exercise.

Do **not** refer to increased breathing rate in your answer.

[2 marks]

1 _____

_____

2 _____

_____