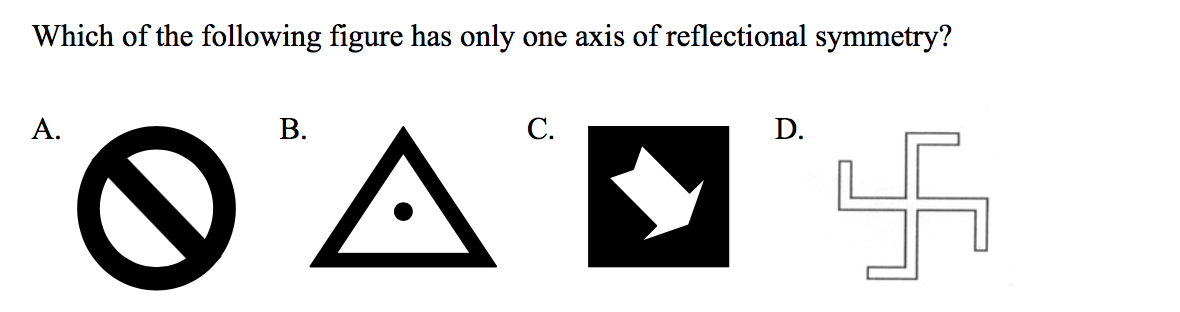
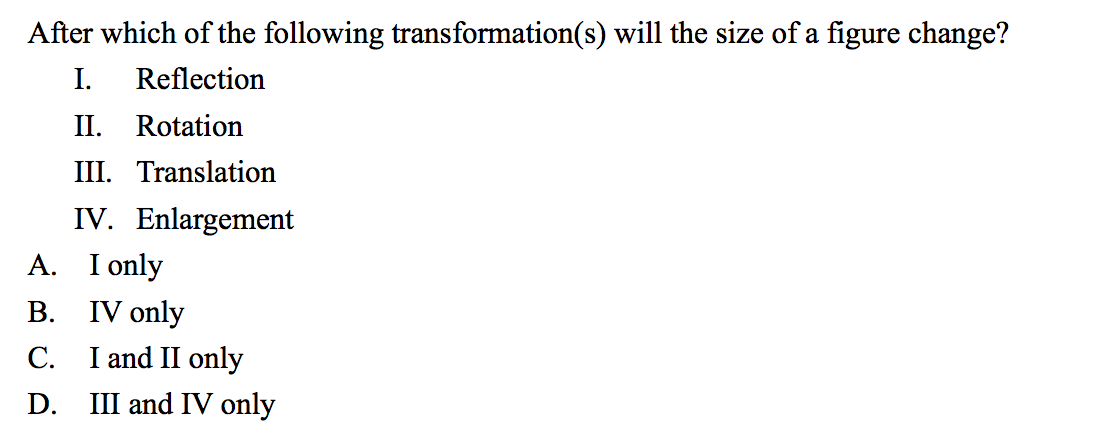
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| APT Education Limited | Name: |
| Y7 1st Term Assessment Mock 1 (2019-2020) | Date: |

Section A. Multiple Choice

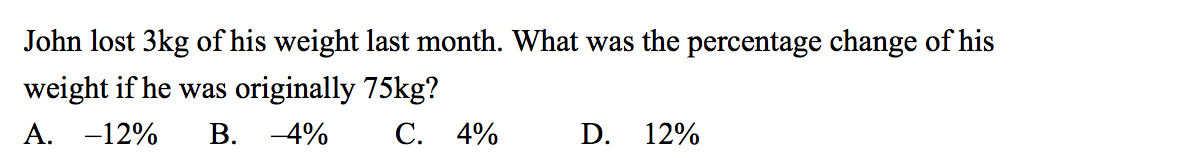
1.



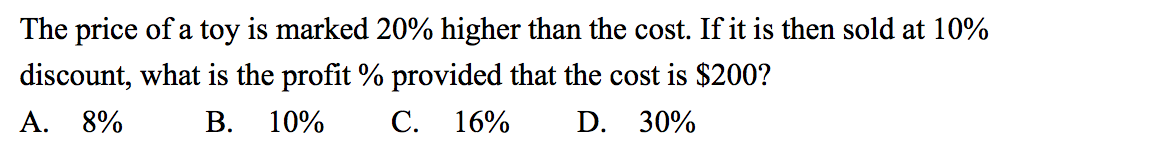
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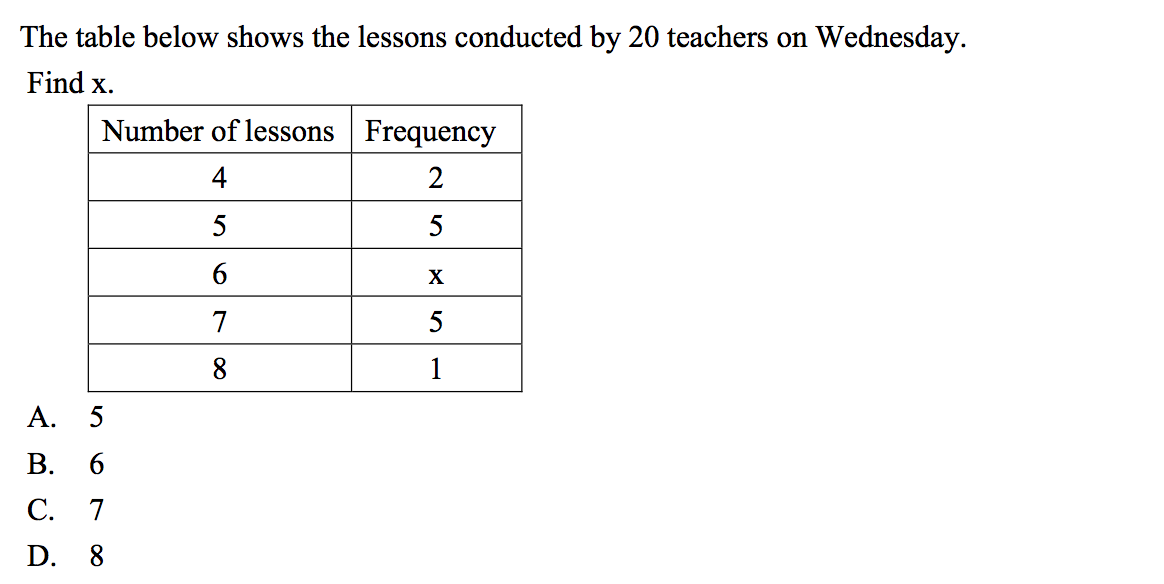
3.



4.



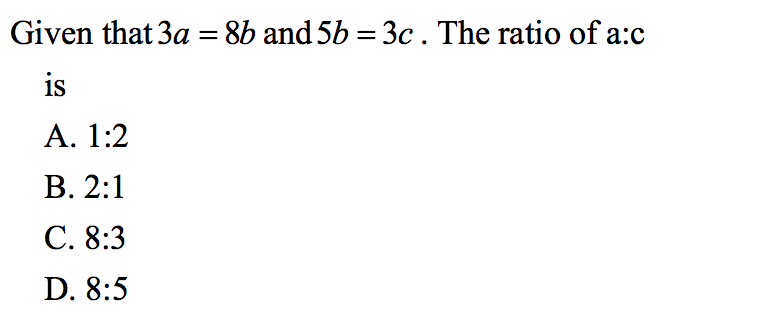
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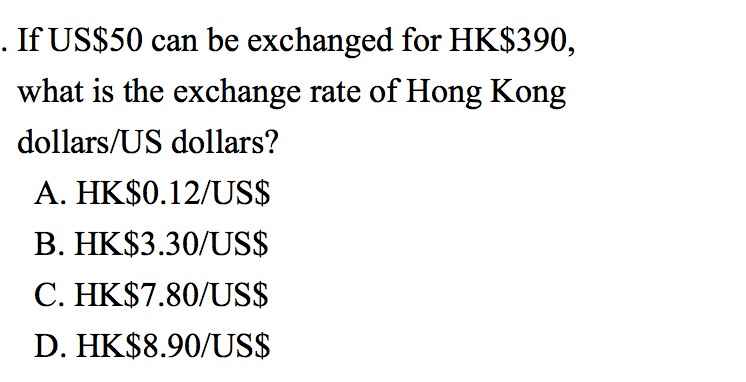
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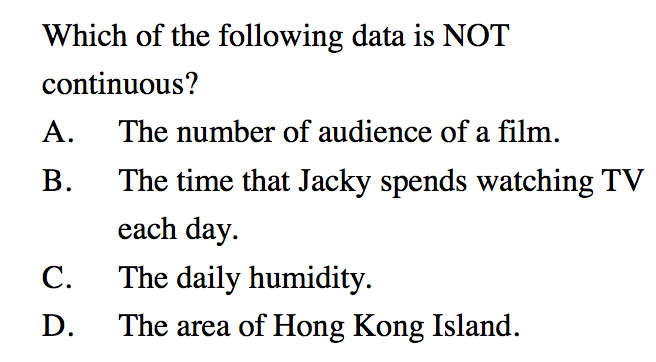
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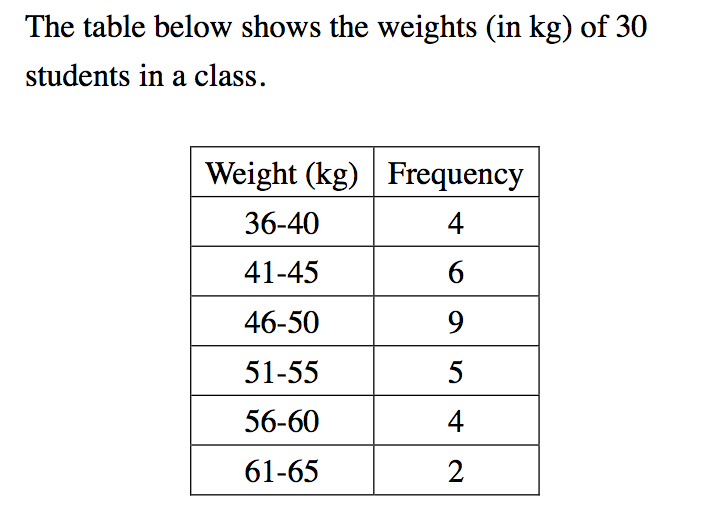
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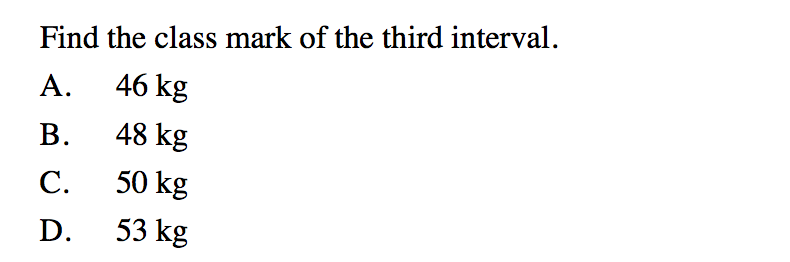


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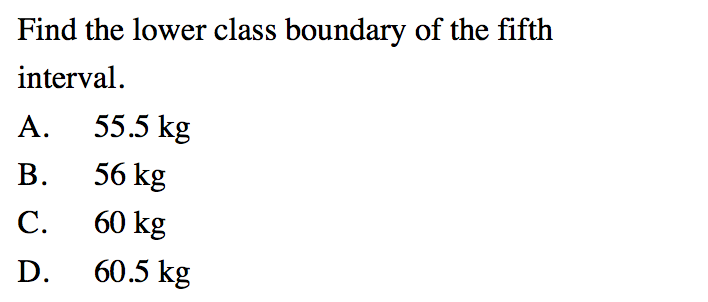


10. Refer to the following information and answer questions 16-17.

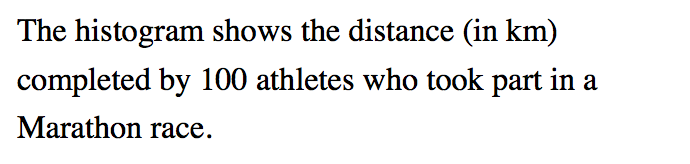


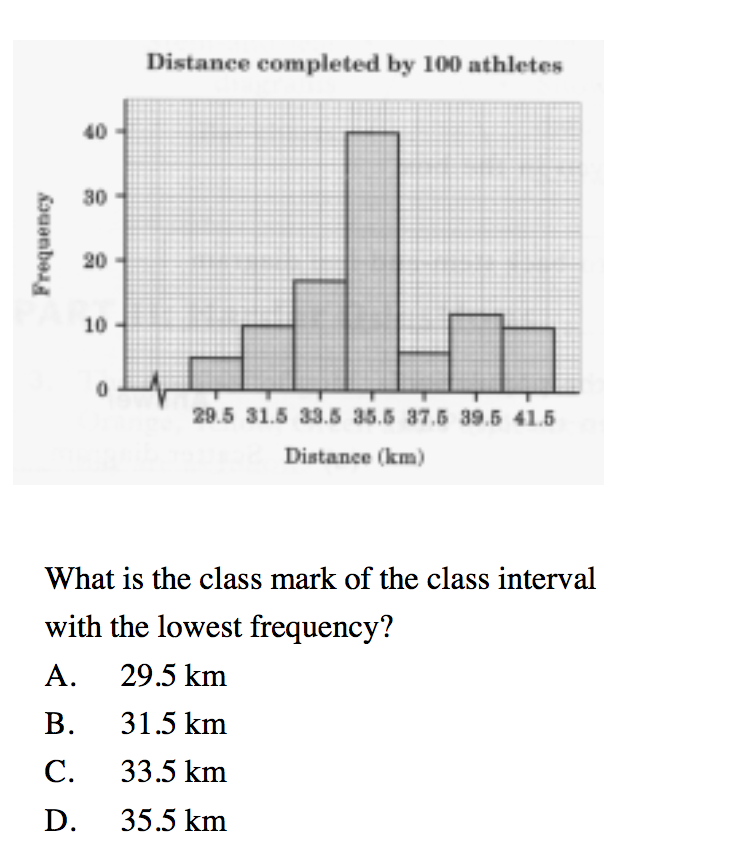


11.

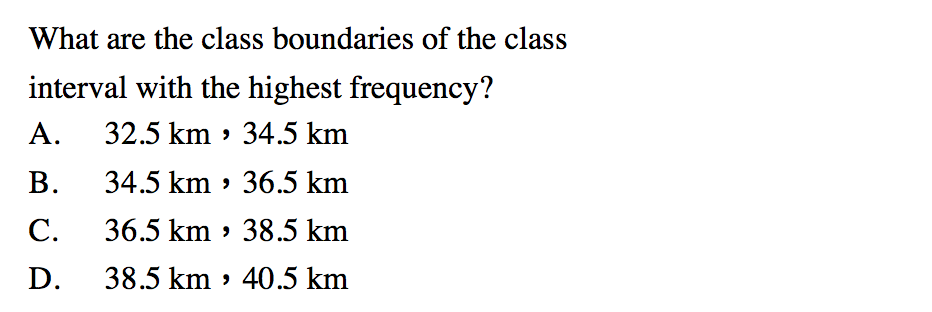


12. Refer to the following information and answer questions 18-19

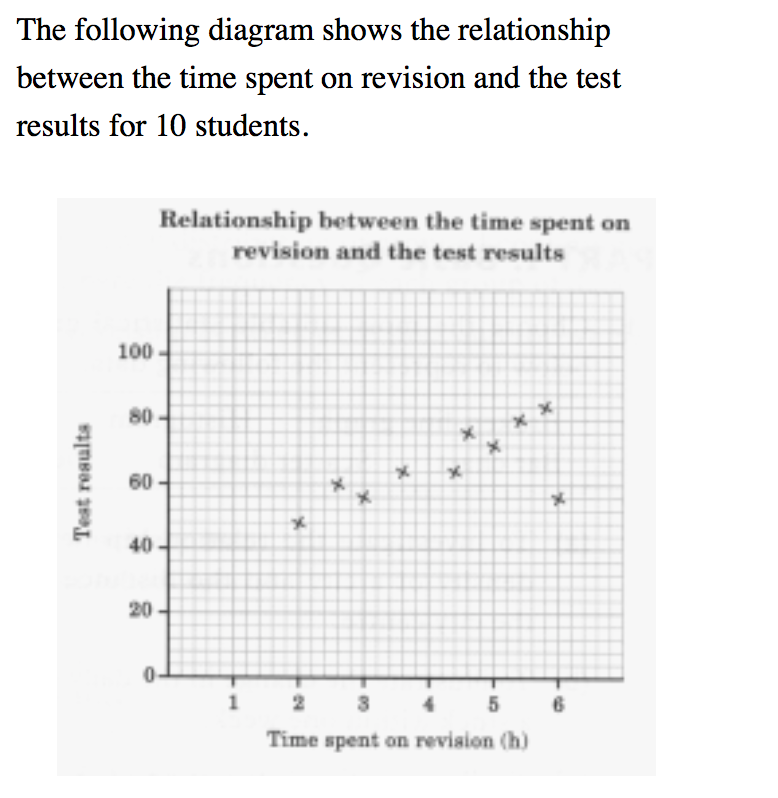


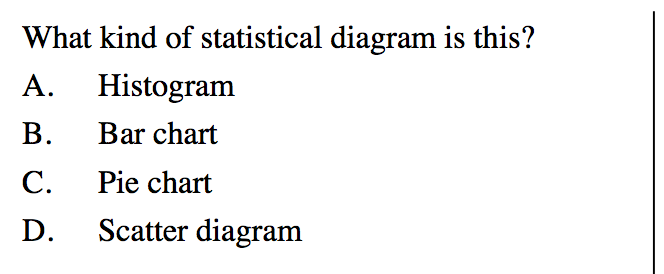


13.

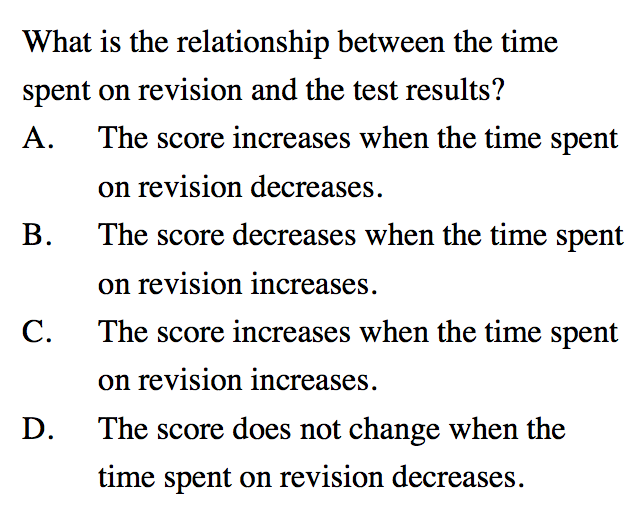


14. Refer to the following information and answer questions 20-21



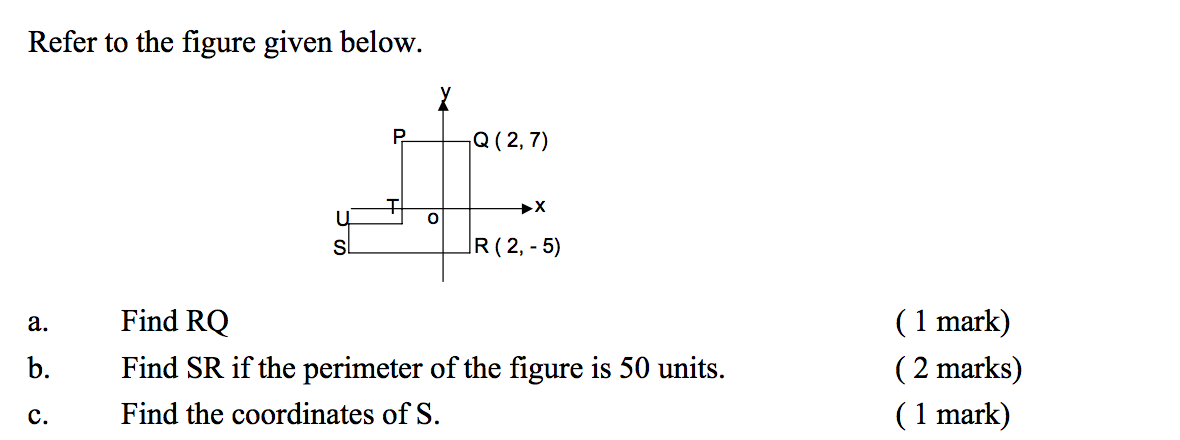


15.

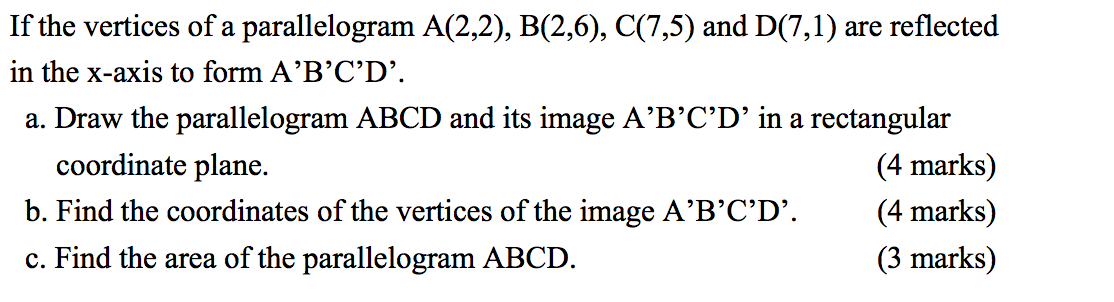


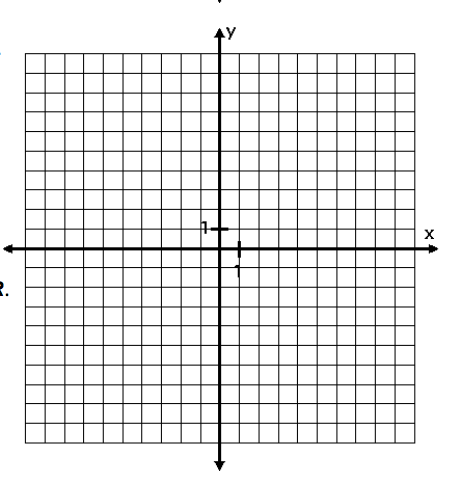
Section B Short Questions

1.

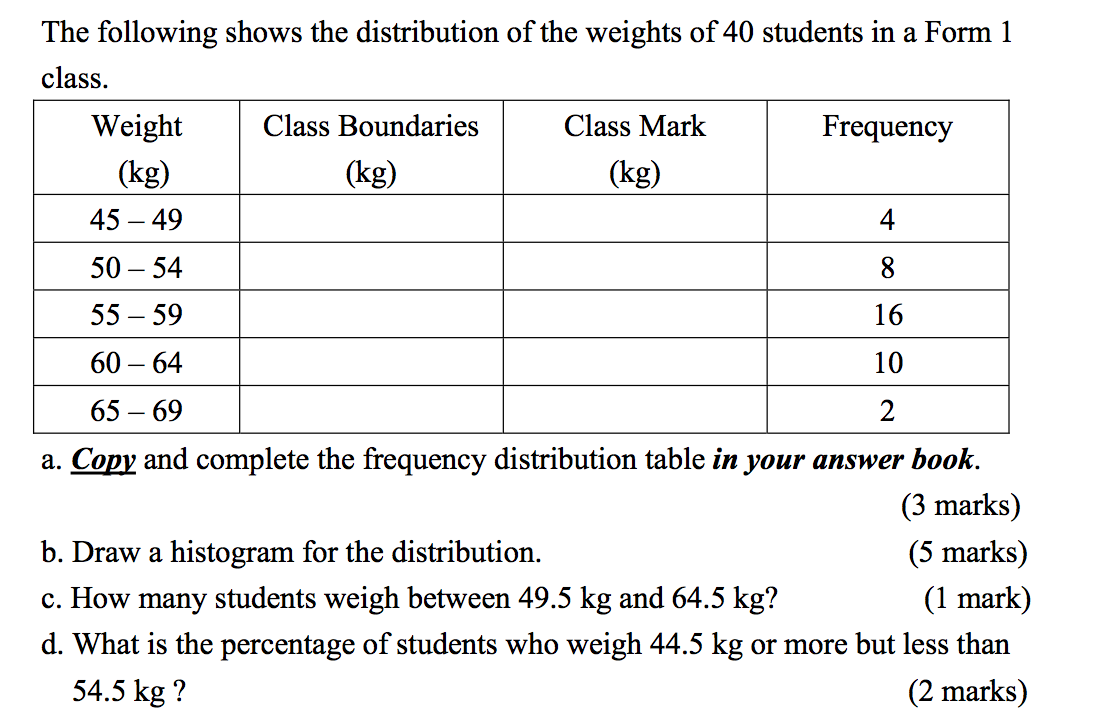


2.





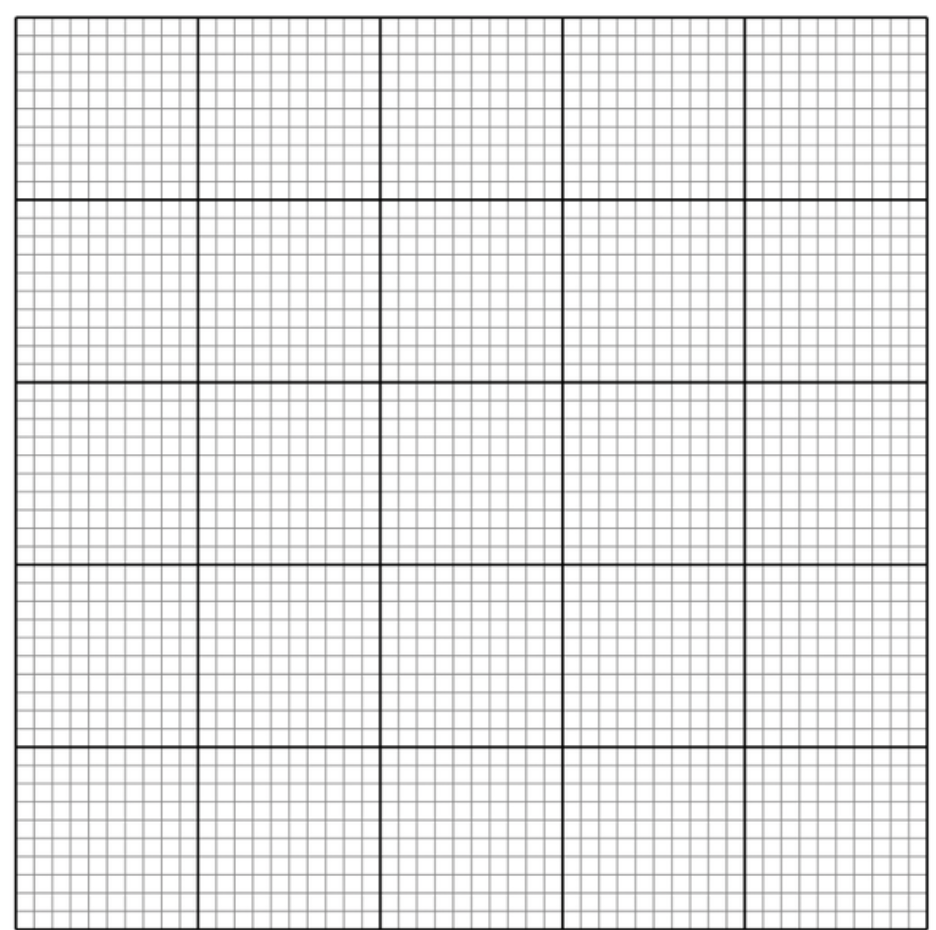
3.



a.

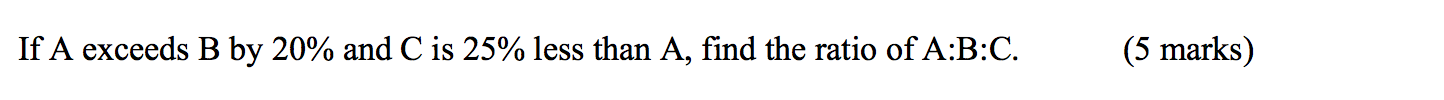
|  |  |
| --- | --- |
| Class Boundaries | Class Mark |
|  |  |
|  |  |
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|  |  |

b.

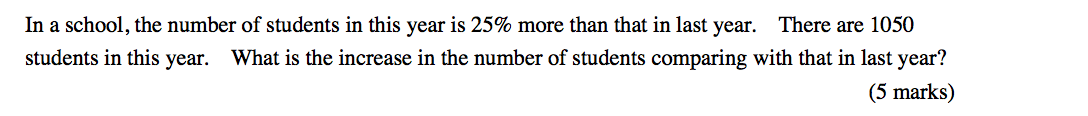


C.

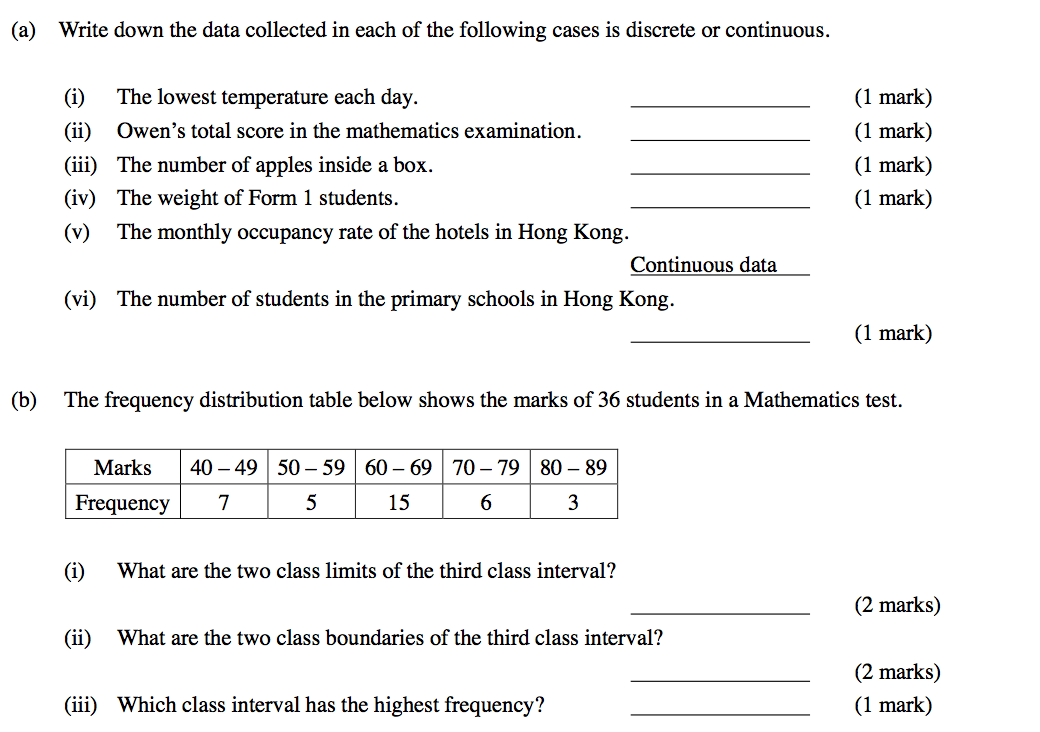
d.

4. 

5.



6.



7.

X, Y and Z depart from place A at the same time and travel to place B.

If the times taken by them are in the ratio 12 : 10 : 15,

**(a)** who arrives at place B first? Why?

**(b)** what is the ratio of their speeds?

8.

|  |  |  |
| --- | --- | --- |
|  |  | The heights of Kenneth, Alex and Ivan are in the ratio 4 : 3 : 5. If Kenneth is taller than Alex by  35 cm, find the heights of Alex and Ivan. |

9.

The selling price of an electrical appliance is $1 416 if it is sold at a profit rate of *p*%. The selling price is $984 if it is sold at a loss rate of *p*%.

**(a)** Find the value of *p*.

**(b)** Find the cost of the appliance.

**(c)** The marked price of the appliance is set with a 25% profit on its cost. If a minimum profit rate of 6.25% is wanted, find the maximum discount rate in selling the appliance.

10.

|  |
| --- |
| GIF\QB3-ch03\QB3-03-133.gif  The above figure shows a rectangle ABCD. The coordinates of vertex A are (−3, 2). AB and DC intersect the *y*-axis at points E and H respectively. AD and BC intersect the *x*-axis at points F and G respectively, with AB // FG. It is given that the area of rectangle FGCD is 3 times the area of rectangle ABGF, and the area of rectangle ADHE is 3 times the area of rectangle EHCB.  **(a)** Find the coordinates of B, C and D.  **(b) (i)** Find the perimeter of rectangle ABCD  **(ii)** Find the area of rectangle ABCD. |

11.

Suppose the cost of painting a wall is in proportion to the area of the wall. Given the cost of painting a 28 m (length) by 2.5 m (height) wall is $5 000. There is another wall of which the length is 50% longer and the height is 10% shorter than the wall mentioned above.

**(a)** Find the ratio of the area of the new wall to that of the given one.

**(b)** Find the cost of painting the new wall.

12.

|  |  |
| --- | --- |
| **1** | **(a)** In the figures above,  **(i)** which one(s) possess(es) only reflectional symmetry but do/does not possess rotational symmetry?  **(ii)** which one(s) possess(es) only rotational symmetry but do/does not possess reflectional symmetry?  **(iii)** which one(s) possess(es) both reflectional and rotational symmetries?  **(iv)** which one(s) do/does not possess reflectional symmetry nor rotational symmetry?  **(b)** In each of the above figures that possesses reflectional symmetry, draw all the axis/axes of symmetry using dotted line(s).  **(c)** Find the order of rotational symmetry for each of the above figures that possesses rotational symmetry. |

13.

A cup is sold at $68 with a loss rate of 20%. A plate is sold at $45 with a profit rate of 25%. What is the profit rate or loss rate of selling a cup and a plate altogether? (Give the answer correct to 2 decimal places.)

14.

The labour fee and cost of material are 60% and 40% the total cost of producing a furniture respectively. The furniture produced is sold at a profit rate of 35%. If the labour cost increases by 20%, the material cost decreases by 10% and the selling price of the furniture increases by 15%, find the new profit rate.