Grade 9 Advance Mathematics – Revision

Chapter 15

Answer all the questions

1.	Thirty girls tried out for 15 spots on the basketball team. What is the ratio of open spots to the number of girls competing?

(a) 1 : 1 (b) 1 : 2 (c) 2 : 1 (d) 2 : 2

2.	The ratio of the measures of three sides of a triangle is 2 : 5 : 4 and its perimeter is 165 units. Find the measure of each side of the triangle.

(a) 40, 75, 60 (b) 20, 75, 60 (c) 30, 75, 60 (d) 40, 75, 20

3.	The ratio of the measures of three sides of a triangle are 4 : 6 : 8. Find the measure of each angle of the triangle.

(a) 40, 75, 60 (b) 40, 60, 80 (c) 30, 75, 60 (d) 40, 75, 20

4.	Solve the proportion $\frac{2}{3} = \frac{x}{24}$.

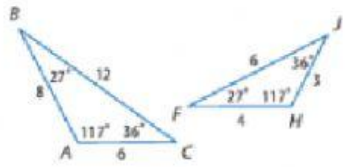
(a) 80 (b) 5 (c) 22 (d) 16

5.	Solve the proportion $\frac{x-3}{3} = \frac{5}{8}$.

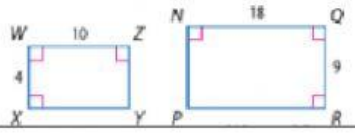
(a) 80.2 (b) 4.875 (c) 22.34 (d) 16.25

6.	Halima is baking apple muffins for the student council bake sale. The recipe that she is using calls for 2 eggs per dozen muffins and she needs to make 108 muffins. How many eggs will she need?

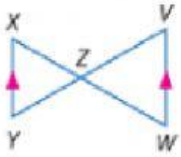
(a) 80 (b) 5 (c) 18 (d) 16

7.	Determine whether the two triangles are similar or not. 

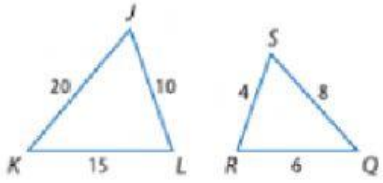
(a) yes (b) no

8.	Determine whether the two triangles are similar or not. 

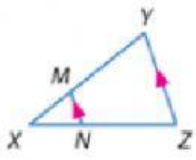
(a) yes (b) no

9.	Determine whether the two triangles are similar or not. 

(a) yes, by AA similarity (b) yes, by SAS similarity (c) yes, by SSS similarity (d) No

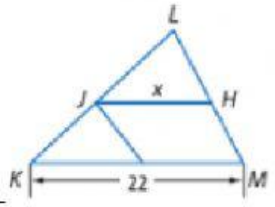
10.	Determine whether the two triangles are similar or not. 

(a) yes, by AA similarity (b) yes, by SAS similarity (c) yes, by SSS similarity (d) No

11.	If $XM = 4$, $XN = 6$, and $NZ = 9$, find XY. 

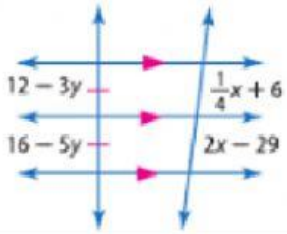
(a) 11 (b) 12 (c) 13 (d) 10

12. $\overline{JH}$ is a midsegment of $\triangle KLM$. Find the value of x.



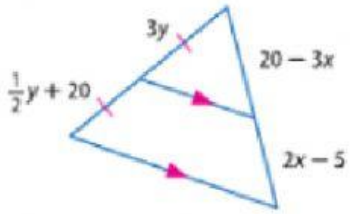
(a) 11 (b) 12 (c) 13 (d) 10

13. Find x and y.



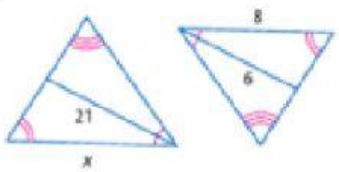
(a) x = 11, y = 2 (b) x = 10, y = 2 (c) x = 11, y = 21 (d) x = 1, y = 2

14. Find x and y.



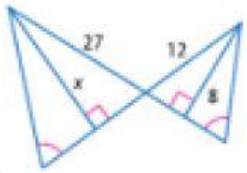
(a) x = 11, y = 2 (b) x = 10, y = 2 (c) x = 5, y = 8 (d) x = 1, y = 2

15. Find x.



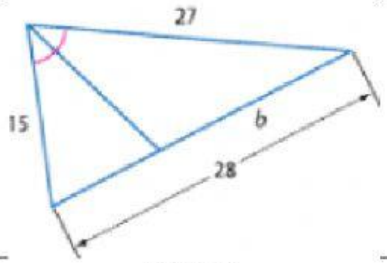
(a) x = 11 (b) x = 10 (c) x = 5 (d) x = 28

16. Find x.



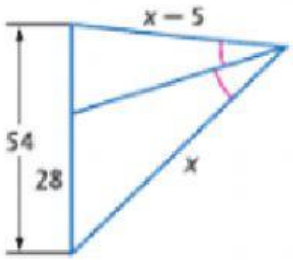
(a) x = 18 (b) x = 10 (c) x = 5 (d) x = 28

17. Find the value of b.



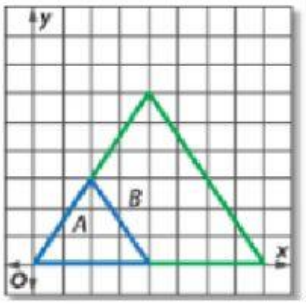
(a) b = 18 (b) b = 10 (c) b = 5 (d) b = 28

18. Find the value of x.



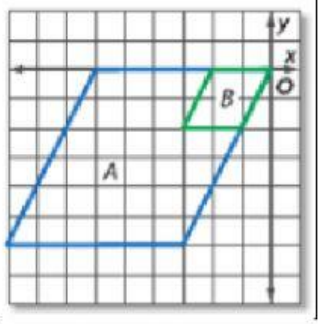
(a) x = 18 (b) x = 70 (c) x = 50 (d) x = 28

19. **Determine whether the dilation from *A* to *B* is an *enlargement* or a *reduction*. Then find the scale factor of the dilation.**



(a) enlargement, 3 (b) enlargement, 2 (c) reduction, 3 (d) reduction, 2

20. **Determine whether the dilation from A to B is an *enlargement* or a *reduction*. Then find the scale factor of the dilation.**



(a) enlargement, 3 (b) enlargement, 2 (c) reduction, 3 (d) reduction, 1/3