Medians and the centroid worksheet – Grade 10

Grade 10 · Mixed level · 20 questions · **Version X2418**

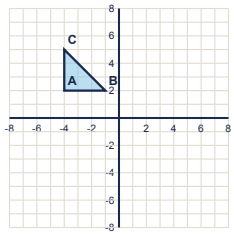
Name: _____ Date: _____ Score: ___ / 20

Scan to check answers + earn stars

Write it like (−3, 5).

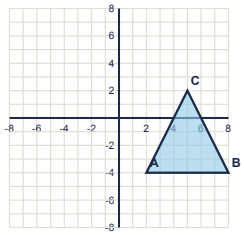
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1. Work out the centroid of the triangle A(-4, 2), B(-1, 2), C(-4, 5).



Answer: _____

2. What is the centroid of the triangle A(2, -4), B(8, -4), C(5, 2)?



Answer: _____

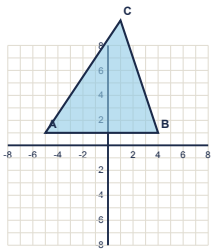
3. What is a median of a triangle?

A. A segment from a vertex to the midpoint of the opposite side

B. A line at right angles to a side **C.** A line splitting an angle in half **D.** The longest side

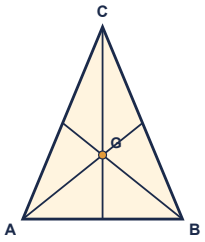
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4. Find the centroid of the triangle A(-5, 1), B(4, 1), C(1, 10).



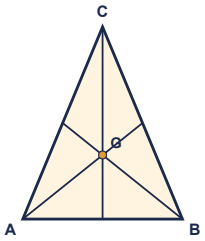
Answer: _____

5. A median is 27 cm long. How far is the centroid from the vertex, in cm?



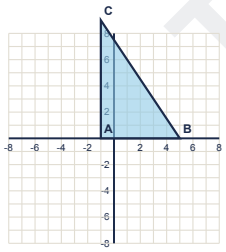
Answer: _____ cm

6. A triangle has an area of 24 cm². What is the area of each of the two parts made by one median, in cm²?



Answer: _____ cm²

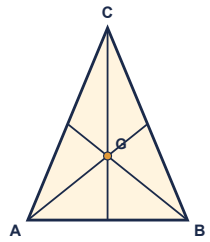
7. What is the centroid of the triangle A(-1, 0), B(5, 0), C(-1, 9)?



Answer: _____

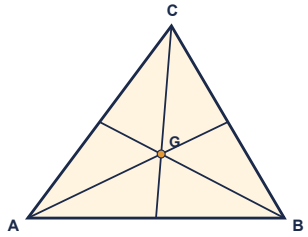
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8. In a triangle, AG = 42 cm, where G is the centroid and AD is a median. How long is GD, in cm?



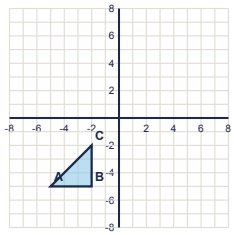
Answer: _____ cm

9. All three medians split a triangle of area 24 cm² into 6 parts of equal area. What is the area of each part, in cm²?



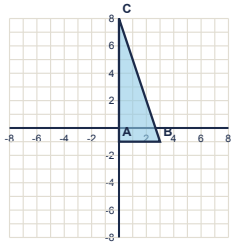
Answer: _____ cm²

10. In triangle A(-5, -5), B(-2, -5), C(-2, -2), how long is the median from A? Give your answer to two decimal places.



Answer: _____

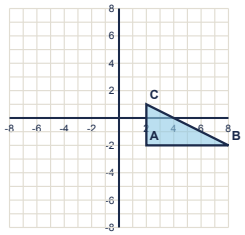
11. The vertices of a triangular metal plate are A(0, -1), B(3, -1), C(0, 8). Where is its balance point?



Answer: _____

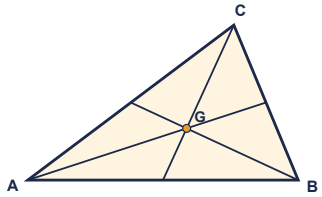
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12. In triangle A(2, -2), B(8, -2), C(2, 1), what is the midpoint of BC?



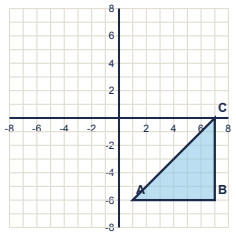
Answer: _____

13. In a triangle, AG = 60 cm, where G is the centroid and AD is a median. How long is GD, in cm?



Answer: _____ cm

14. In triangle A(1, -6), B(7, -6), C(7, 0), what is the midpoint of BC?



Answer: _____

15. In an isosceles triangle with equal sides 15 and base 18, how long is the median to the base?

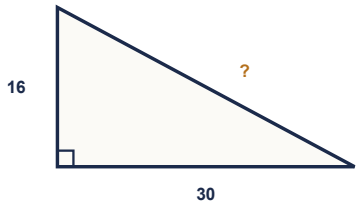
Answer: _____

16. A triangular sign hangs from a thread at its centroid. Why does it stay level?

A. The centroid is its balance point **B.** It is the highest point **C.** It is the largest angle **D.** Thread is light

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17. A right triangle has legs 16 and 30. How long is the median to the hypotenuse?



Answer: _____

18. Using Apollonius's theorem, a triangle has sides 10, 12 and 10. Find the median to side a, to two decimal places.

Answer: _____

19. Two vertices of a triangle are (-5, -2) and (-2, -2), and its centroid is (-2, -1). Find the third vertex.

Answer: _____

20. In an isosceles triangle with equal sides 13 and base 10, how long is the median to the base?

Answer: _____

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Answer key · Version X2418

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1. **(-3, 3)**
2. **(5, -2)**
3. **A (A segment from a vertex to the midpoint of the opposite side)**
4. **(0, 4)**
5. **18**
6. **12**
7. **(1, 3)**
8. **21**
9. **4**
10. **3.35**
11. **(1, 2)**
12. **(5, -0.5)**
13. **30**
14. **(7, -3)**
15. **12**
16. **A (The centroid is its balance point)**
17. **17**
18. **9.85**
19. **(1, 1)**
20. **12**

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