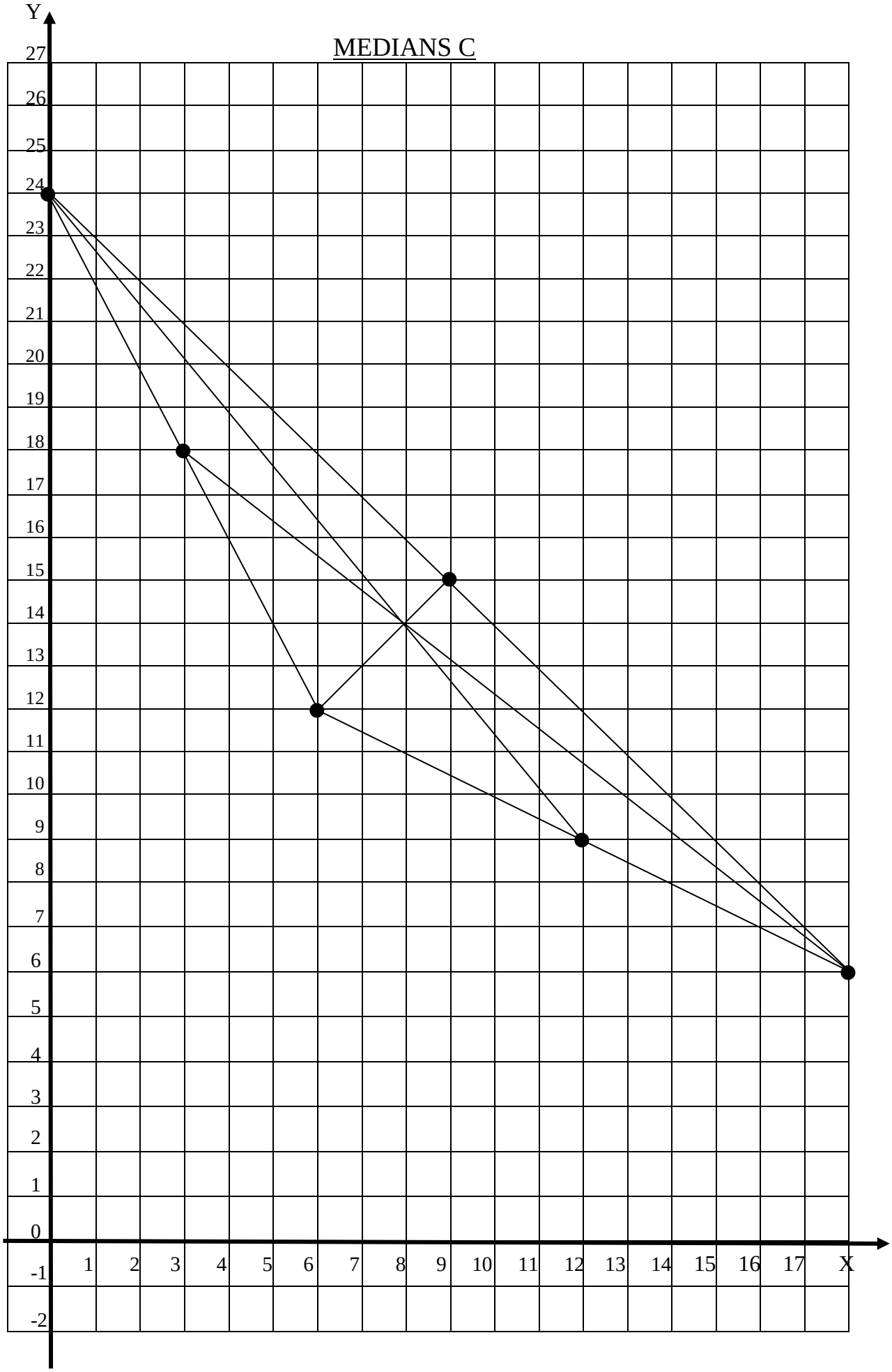
MEDIANS C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1. Draw triangle ABC where A = (6, 12) B = (18, 6) and C = (0, 24)

2. Find lengths of : $AB^2 = 12^2 + 6^2$ so AB = 13.4

$BC^2 = 18^2 + 18^2$ so BC = 25.5

$CA^2 = 12^2 + 6^2$ so CA = 13.4

3. Find MID POINT of : AB (12, 9)

BC (9, 15)

CA (3, 18)

4. Find Gradient of : AB - ½

BC -1

CA -2

5. Find EQUATIONS of : AB $y = -\frac{1}{2}x + 15$

BC $y = -x + 24$

CA $y = -2x + 24$

6. Find equations of MEDIANS A to BC $y = x + 6$

B to AC $y = -4/5\,x + 20.4$

C to AB $y = -5/4x + 24$

7. Find the coordinates of the point of intersection of the medians.
(you only need to use 2 equations)
(8, 14)

$$x + 6 = -5/4x + 24$$
$$4x + 24 = -5x + 96$$
$$9x = 72$$
$$x = 8 \quad y = 14$$

8. Calculate the intersection of the lines : $4x + 3y = 62$
$2x - y = 6$

Use graphic calculator.

$x = 8 \quad y = 10$