

Name : \_\_\_\_\_

## Equation of a Median

Sheet 1

- 1) If  $P(-3, 2)$ ,  $Q(-3, -2)$  and  $R(1, -2)$  are the vertices of  $\triangle PQR$ , find the equation of the median  $\overline{QS}$ .

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- 2)  $B(0, -1)$  and  $C(2, 3)$  are the vertices of  $\triangle ABC$ . Determine the equation of the median  $\overline{AD}$ , if its slope is  $-2$ .

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- 3)  $S(2, 5)$ ,  $T(-10, 0)$  and  $U(4, -1)$  are the vertices of  $\triangle STU$ . Find the equation of the median  $\overline{SV}$ .

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- 4)  $D(-5, 3)$  and  $E(-3, -3)$  are the vertices of  $\triangle CDE$ . If the slope of  $\overline{CF}$  is  $\frac{2}{3}$ , determine the equation of the median  $\overline{CF}$ .

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- 5) If  $K(9, 8)$ ,  $L(-15, -14)$  and  $M(6, -7)$  are the vertices of  $\triangle KLM$ , determine the equation of the median  $\overline{MN}$ .

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## Answer key

Sheet 1

### Equation of a Median

- 1) If  $P(-3, 2)$ ,  $Q(-3, -2)$  and  $R(1, -2)$  are the vertices of  $\triangle PQR$ , find the equation of the median  $\overline{QS}$ .

$$\underline{x - y = -1}$$

- 2)  $B(0, -1)$  and  $C(2, 3)$  are the vertices of  $\triangle ABC$ . Determine the equation of the median  $\overline{AD}$ , if its slope is  $-2$ .

$$\underline{2x + y = 3}$$

- 3)  $S(2, 5)$ ,  $T(-10, 0)$  and  $U(4, -1)$  are the vertices of  $\triangle STU$ . Find the equation of the median  $\overline{SV}$ .

$$\underline{11x - 10y = -28}$$

- 4)  $D(-5, 3)$  and  $E(-3, -3)$  are the vertices of  $\triangle CDE$ . If the slope of  $\overline{CF}$  is  $\frac{2}{3}$ , determine the equation of the median  $\overline{CF}$ .

$$\underline{2x - 3y = -8}$$

- 5) If  $K(9, 8)$ ,  $L(-15, -14)$  and  $M(6, -7)$  are the vertices of  $\triangle KLM$ , determine the equation of the median  $\overline{MN}$ .

$$\underline{4x + 9y = -39}$$