Equation of a Median

Name _____

Score _____

MC:12

1) A, B and C are vertices of $\triangle ABC$. If $\overline{AD}$ is the median of the triangle, find the equation of the median $\overline{AD}$.

A(x , y)	B(x , y)	C(x , y)	D(x , y)	Equation of median $\overline{AD}$
(4 , 3)	(1 , 2)	(5 , 6)		
(–2 , –1)	(–7 , –4)	(–1 , –8)		
(–6 , 0)	(9 , –5)	(0 , 4)		

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

P(x , y)	Q(x , y)	R(x , y)	S(x , y)	Equation of median $\overline{QS}$
(10 , 0)	(–2 , 5)	(–6 , –1)		
(–4 , –4)	(7 , 3)	(–2 , 8)		
(11 , 9)	(2 , –3)	(5 , 5)		

3) F, G and H are vertices of $\triangle FGH$. If $\overline{HE}$ is the median of the triangle, find the equation of the median $\overline{HE}$.

F(x , y)	G(x , y)	H(x , y)	E(x , y)	Equation of median $\overline{HE}$
(–3 , 6)	(2 , –1)	(0 , 4)		
(5 , –2)	(–4 , –7)	(–1 , 1)		
(–8 , –1)	(0 , 1)	(3 , –5)		

Equation of a Median

Answer key

Name _____

Score _____

MC:12

1) A, B and C are vertices of $\triangle ABC$. If $\overline{AD}$ is the median of the triangle, find the equation of the median $\overline{AD}$.

A(x , y)	B(x , y)	C(x , y)	D(x , y)	Equation of median $\overline{AD}$
(4 , 3)	(1 , 2)	(5 , 6)	**(3 , 4)**	**x +y = 7**
(–2 , –1)	(–7 , –4)	(–1 , –8)	**(–8 , –6)**	**5x – 6y = –4**
(–6 , 0)	(9 , –5)	(0 , 4)	$\left(\frac{9}{2}, -\frac{1}{2}\right)$	**x – 21y = –6**

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

P(x , y)	Q(x , y)	R(x , y)	S(x , y)	Equation of median $\overline{QS}$
(10 , 0)	(–2 , 5)	(–6 , –1)	$\left(2, -\frac{1}{2}\right)$	**11x + 8y = 18**
(–4 , –4)	(7 , 3)	(–2 , 8)	**(–3 , 2)**	**x – 10y = –23**
(11 , 9)	(2 , –3)	(5 , 5)	**(8 , 7)**	**5x – 3y = 19**

3) F, G and H are vertices of $\triangle FGH$. If $\overline{HE}$ is the median of the triangle, find the equation of the median $\overline{HE}$.

F(x , y)	G(x , y)	H(x , y)	E(x , y)	Equation of median $\overline{HE}$
(–3 , 6)	(2 , –1)	(0 , 4)	$\left(-\frac{1}{2}, \frac{5}{2}\right)$	**3x – y = –4**
(5 , –2)	(–4 , –7)	(–1 , 1)	$\left(\frac{1}{2}, -\frac{9}{2}\right)$	**11x + 3y = –8**
(–8 , –1)	(0 , 1)	(3 , –5)	**(–4 , 0)**	**5x + 7y = –20**