### Lesson 10 Practice Problems

1. Select **all** equations that are parallel to the line $2x+5y=8$.
	1. $y=\frac{2}{5}x+4$
	2. $y=-\frac{2}{5}x+4$
	3. $y−2=\frac{5}{2}\left(x+1\right)$
	4. $y−2=-\frac{2}{5}\left(x+1\right)$
	5. $10x+5y=40$
2. Prove that $ABCD$ is not a parallelogram.
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1. Write an equation of a line that passes through $\left(-1,2\right)$ and is parallel to a line with $x$-intercept $\left(3,0\right)$ and $y$-intercept $\left(0,1\right)$.
2. Write an equation of the line with slope $\frac{2}{3}$ that goes through the point $\left(-2,5\right)$.
* (From Unit 6, Lesson 9.)
1. Priya and Han each wrote an equation of a line with slope $\frac{1}{3}$ that passes through the point $\left(1,2\right)$. Priya’s equation is $y−2=\frac{1}{3}\left(x−1\right)$ and Han’s equation is $3y−x=5$. Do you agree with either of them? Explain or show your reasoning.
* (From Unit 6, Lesson 9.)
1. Match each equation with another equation whose graph is the same parabola.
	1. $\left(x−3\right)^{2}+\left(y−2\right)^{2}=y^{2}$
	2. $\left(x−2\right)^{2}+\left(y−3\right)^{2}=\left(y+3\right)^{2}$
	3. $\left(x−3\right)^{2}+\left(y−4\right)^{2}=\left(y+2\right)^{2}$
	4. $\left(x−2\right)^{2}+\left(y−2\right)^{2}=\left(y+2\right)^{2}$
	5. $y=\frac{1}{8}\left(x−2\right)^{2}$
	6. $y=\frac{1}{12}\left(x−2\right)^{2}$
	7. $y=\frac{1}{4}\left(x−3\right)^{2}+1$
	8. $y=\frac{1}{12}\left(x−3\right)^{2}+1$
* (From Unit 6, Lesson 8.)
1. A parabola is defined as the set of points the same distance from $\left(-1,3\right)$ and the line $y=5$. Select the point that is on this parabola.
	1. $\left(-1,3\right)$
	2. $\left(0,5\right)$
	3. $\left(3,0\right)$
	4. $\left(0,0\right)$
* (From Unit 6, Lesson 7.)
1. Here are some transformation rules. For each rule, describe whether the transformation is a rigid motion, a dilation, or neither.
	1. $\left(x,y\right)\rightarrow \left(2x,y+2\right)$
	2. $\left(x,y\right)\rightarrow \left(2x,2y\right)$
	3. $\left(x,y\right)\rightarrow \left(x+2,y+2\right)$
	4. $\left(x,y\right)\rightarrow \left(x−2,y\right)$
* (From Unit 6, Lesson 2.)



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