### 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. $y−2=\frac{5}{2}(x+1)$
	4. $y−2=-\frac{2}{5}(x+1)$
	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 $(-1,2)$ and is parallel to a line with $x$-intercept $(3,0)$ and $y$-intercept $(0,1)$.
2. Write an equation of the line with slope $\frac{2}{3}$ that goes through the point $(-2,5)$.
* (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 $(1,2)$. Priya’s equation is $y−2=\frac{1}{3}(x−1)$ 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. $(x−3)^{2}+(y−2)^{2}=y^{2}$
	2. $(x−2)^{2}+(y−3)^{2}=(y+3)^{2}$
	3. $(x−3)^{2}+(y−4)^{2}=(y+2)^{2}$
	4. $(x−2)^{2}+(y−2)^{2}=(y+2)^{2}$
	5. $y=\frac{1}{8}(x−2)^{2}$
	6. $y=\frac{1}{12}(x−2)^{2}$
	7. $y=\frac{1}{4}(x−3)^{2}+1$
	8. $y=\frac{1}{12}(x−3)^{2}+1$
* (From Unit 6, Lesson 8.)
1. A parabola is defined as the set of points the same distance from $(-1,3)$ and the line $y=5$. Select the point that is on this parabola.
	1. $(-1,3)$
	2. $(0,5)$
	3. $(3,0)$
	4. $(0,0)$
* (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. $(x,y)\rightarrow (2x,y+2)$
	2. $(x,y)\rightarrow (2x,2y)$
	3. $(x,y)\rightarrow (x+2,y+2)$
	4. $(x,y)\rightarrow (x−2,y)$
* (From Unit 6, Lesson 2.)



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