### Lesson 7 Practice Problems

1. Diego wrote $f(x)=(x+2)(x−4)$ as an example of a function whose graph has $x$-intercepts at $x=-4,2$. What was his mistake?
2. Write a possible equation for a polynomial whose graph has horizontal intercepts at $x=2,-\frac{1}{2},-3$.
3. Which polynomial function’s graph is shown here?
* 
	1. $f(x)=(x+1)(x+3)(x+4)$
	2. $f(x)=(x+1)(x−3)(x+4)$
	3. $f(x)=(x−1)(x+3)(x−4)$
	4. $f(x)=(x−1)(x−3)(x−4)$
1. Which expression is equivalent to $(3x+2)(3x−5)$?
	1. $6x−3$
	2. $9x^{2}−10$
	3. $9x^{2}−3x−10$
	4. $9x^{2}−9x−10$
* (From Unit 2, Lesson 4.)
1. What is the value of $6(x−2)(x−3)+4(x−2)(x−5)$ when $x=-3$?
* (From Unit 2, Lesson 5.)
1. Match each polynomial function with its leading coefficient.
	1. $P(x)=(x+2)(2x−3)(4x+7)$
	2. $P(x)=\frac{1}{2}(x−2)(2x−3)(4x+7)$
	3. $P(x)=5(x−2)(2x−3)(4x+7)$
	4. $P(x)=-(x−2)(2x−3)(4x+7)$
	5. $P(x)=\frac{1}{4}(x+2)(2x−3)(4x+7)$
	6. 40
	7. 8
	8. 4
	9. 2
	10. -8
* (From Unit 2, Lesson 6.)



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