## Unit 7 Lesson 4 Cumulative Practice Problems

1. $M$ is a point on line segment $KL$. $NM$ is a line segment. Select **all** the equations that represent the relationship between the measures of the angles in the figure.
* 
	1. $a=b$
	2. $a+b=90$
	3. $b=90−a$
	4. $a+b=180$
	5. $180−a=b$
	6. $180=b−a$
1. Which equation represents the relationship between the angles in the figure?
* 
	1. $88+b=90$
	2. $88+b=180$
	3. $2b+88=90$
	4. $2b+88=180$
1. Segments $AB$, $EF$, and $CD$ intersect at point $C$, and angle $ACD$ is a right angle. Find the value of $g$.
* 
1. Select **all** the expressions that are the result of decreasing $x$ by 80%.
	1. $\frac{20}{100}x$
	2. $x−\frac{80}{100}x$
	3. $\frac{100−20}{100}x$
	4. $0.80x$
	5. $(1−0.8)x$
* (From Unit 6, Lesson 12.)
1. Andre is solving the equation $4(x+\frac{3}{2})=7$. He says, “I can subtract $\frac{3}{2}$ from each side to get $4x=\frac{11}{2}$ and then divide by 4 to get $x=\frac{11}{8}$.” Kiran says, “I think you made a mistake.”
	1. How can Kiran know for sure that Andre’s solution is incorrect?
	2. Describe Andre’s error and explain how to correct his work.
* (From Unit 6, Lesson 8.)
1. Solve each equation.
* $\frac{1}{7}a+\frac{3}{4}=\frac{9}{8}$
* $\frac{2}{3}+\frac{1}{5}b=\frac{5}{6}$
* $\frac{3}{2}=\frac{4}{3}c+\frac{2}{3}$
* $0.3d+7.9=9.1$
* $11.03=8.78+0.02e$
* (From Unit 6, Lesson 7.)
1. A train travels at a constant speed for a long distance. Write the two constants of proportionality for the relationship between distance traveled and elapsed time. Explain what each of them means.

|  |  |
| --- | --- |
| * time elapsed (hr)
 | * distance (mi)
 |
| * 1.2
 | * 54
 |
| * 3
 | * 135
 |
| * 4
 | * 180
 |

* (From Unit 2, Lesson 5.)



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