Analyzing LCD for Previously Learning Material

➢ Without attempting the problem decide what level of cognitive demand is required to do the problem.
➢ Do the problems on a separate sheet of lined or graph paper. Show all the steps you executed to do the problem including explanations where appropriate.
➢ After attempting the problem decide what level of cognitive demand was required to do the problem.
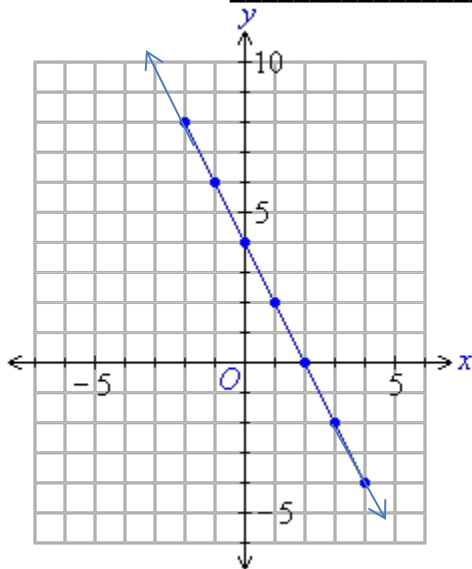
1. Simplify $\dfrac{9(8-5)+15}{2+8\div 2}$

LCD Before _____; **LCD After** _____

2. Solve the equation $x^2 - 12x + 20 = 0$.

LCD Before _____; **LCD After** _____

3. Find the equation of the line.

LCD Before _____; **LCD After** _____

4. In regions with heavy snowfall, the pitch (or slope) of the roof of an A-frame house should be at least 1.25. If a house in this region is 50 feet wide at its base, at least how tall should the center of the roof be? (Include a picture.)

LCD Before _____; **LCD After** _____

5. The Chevy Nova was first introduced in 1970. Tom bought a brand new Chevy Nova in 1970. In 1983 his Nova was worth $2500 and in 1987 it was worth $1850. Assuming the car depreciates in value at a constant rate, write an equation that gives the value V of the car in terms of t, the number of years after 1970.
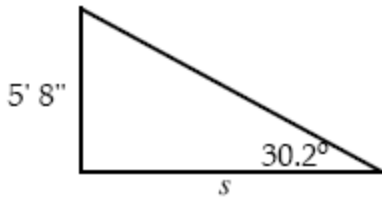
LCD BEFORE _____; **LCD AFTER** _____

6. Solve. $-3(y + 4) = 3y + 10 - 2y$

LCD BEFORE _____; **LCD AFTER** _____

7. Jamie is 5'8" tall. Find the length of her shadow to the nearest inch when the angle of elevation of the sun is 30.2°.

LCD BEFORE _____; **LCD AFTER** _____

5' 8"

30.2°

s

8. Simplify and write answers with positive exponents. $(3x^{-2}y)^4(8x^0)(x^3y^{-1})^2$

LCD BEFORE _____; **LCD AFTER** _____

9. An experimental rocket is launched from the top of a building. The height of the rocket after t seconds is given in feet by $h = -16t^2 + 40t + 80$. Sam is on the roof of the same building. He has a sore neck and it hurts to look up at things higher than 5 feet above his head. How many seconds will it hurt Sam to look at the rocket?

LCD BEFORE _____; **LCD AFTER** _____

10. Wanda has taken four math tests in her math class this quarter. Her lowest test score is 67% and her highest test score is 88%. The mean of her four test scores is 80 and the median test score is 82.5. What are Wanda's other two test scores?

LCD BEFORE _____; **LCD AFTER** _____