15. This month, Kami sold 70 figurines in 2 sizes. The large figurines sold for \$12 each, and the small figurines sold for \$8 each. The amount of money he received from the sales of the large figurines was equal to the amount of money he received from the sales of the small figurines. How many large figurines did Kami sell this month?

A. 20
B. 28
C. 35
D. 42
E. 50

$L + S = 70$

$12L = 8S$

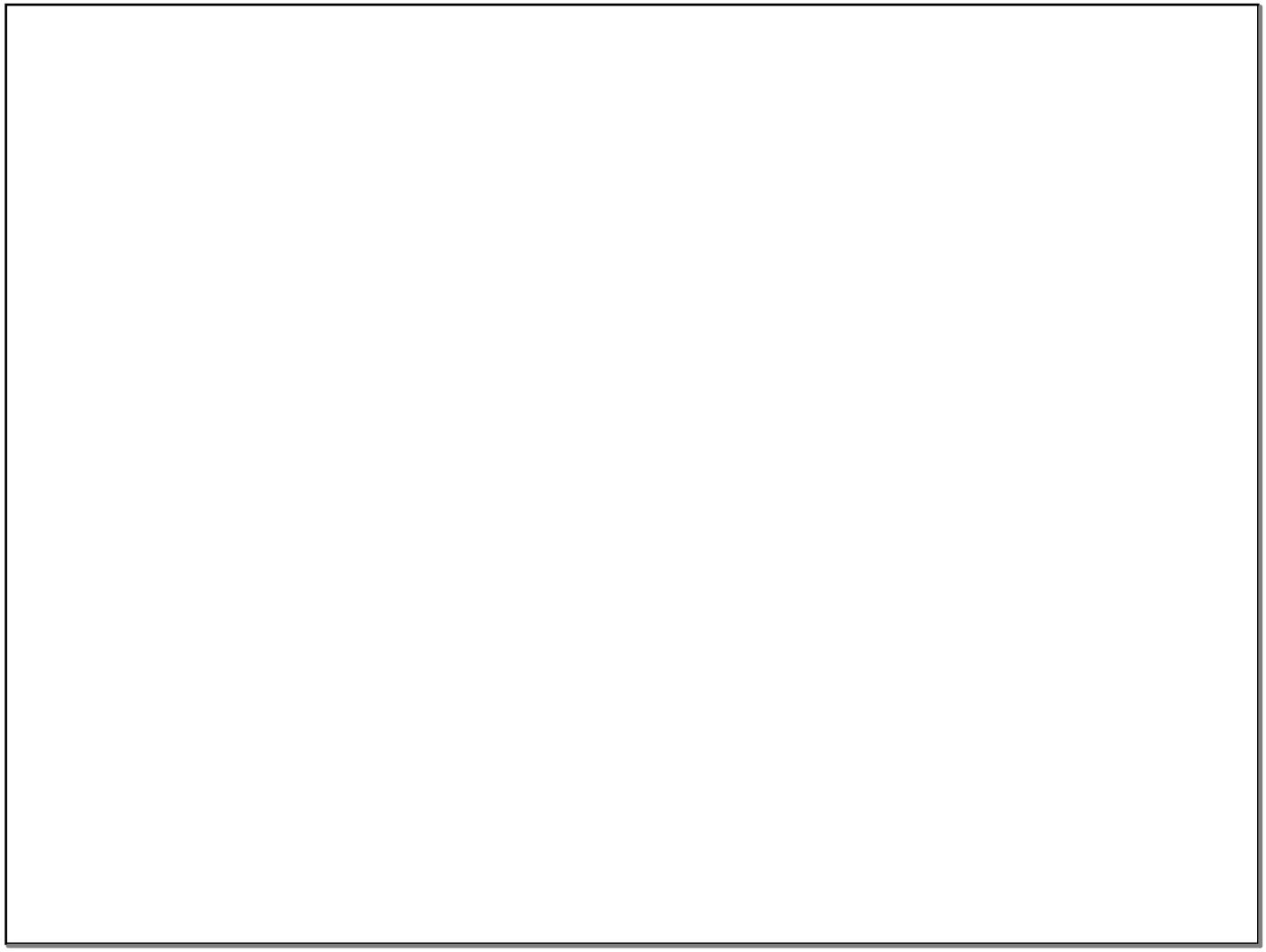
$8L + 8S = 560$

$8L + 12L = 560$

$20L = 560$

$L = 28$

February 13, 2020



16. A car accelerated from 88 feet per second (fps) to 220 fps in exactly 3 seconds. Assuming the acceleration was constant, what was the car's acceleration, in feet per second per second, from 88 fps to 220 fps ?

F. $\frac{1}{44}$

G. $29\frac{1}{3}$

H. 44

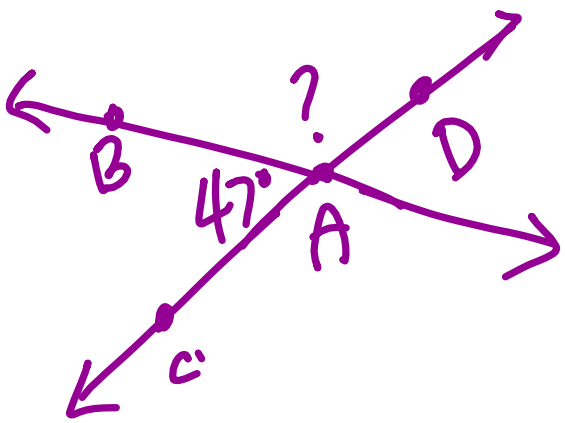
J. $75\frac{1}{3}$

K. $102\frac{2}{3}$

$$\frac{220-88}{3} = \frac{132}{3} = 44$$

17. In a plane, the distinct lines $\overleftrightarrow{AB}$ and $\overleftrightarrow{CD}$ intersect at A, where A is between C and D. The measure of $\angle BAC$ is 47°. What is the measure of $\angle BAD$?

A. 43°
B. 47°
C. 94°
D. 133°
E. 137°



$47 + ? = 180$

$? = 133$

18. In which of the following are $\frac{1}{2}$, $\frac{5}{6}$, and $\frac{5}{8}$ arranged in ascending order?

.5 .625 .833...

F. $\frac{1}{2} < \frac{5}{8} < \frac{5}{6}$

G. $\frac{5}{6} < \frac{1}{2} < \frac{5}{8}$

H. $\frac{5}{6} < \frac{5}{8} < \frac{1}{2}$

J. $\frac{5}{8} < \frac{1}{2} < \frac{5}{6}$

K. $\frac{5}{8} < \frac{5}{6} < \frac{1}{2}$

19. In scientific notation, 670,000,000 + 700,000,000 = ?

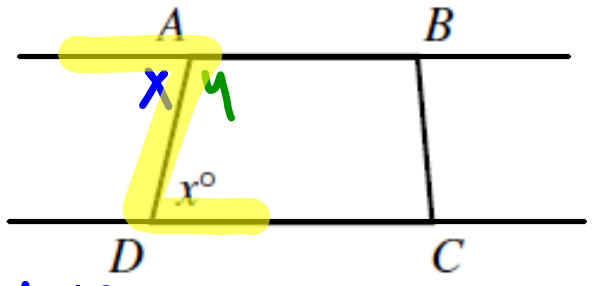
A. 1.37×10^{-9}
B. 1.37×10^{7}
C. 1.37×10^{8}
D. 1.37×10^{9}
E. 137×10^{15}

1,370,000,000

1.37×10^{9}

20. For trapezoid $ABCD$ shown below, $\overline{AB} \parallel \overline{DC}$, the measures of the interior angles are distinct, and the measure of $\angle D$ is $x°$. What is the degree measure of $\angle A$ in terms of x ?

F. $(180 - x)°$
G. $(180 - 0.5x)°$
H. $(180 + 0.5x)°$
J. $(180 + x)°$
K. $x°$



$x+y=180 \rightarrow y=180-x$