EOG Homework #2

Name_____

A school auditorium can hold 386 people. For a choir concert, there will be 10 staff members in attendance. To solve for the number of guests each of the 33 choir members can invite to the concert if they all invite the same number of people, one of the choir members performed the following calculations.

$$33g + 10 \leq 386$$
$$33g \leq 396$$
$$\frac{33g}{33} \leq \frac{396}{33}$$
$$g \leq 12$$

What did the choir member do wrong?

A He used the $\leq$ symbol in the inequality instead of the $<$ symbol.

B He used the $\leq$ symbol in the inequality instead of the $\geq$ symbol.

C He added 10 to the right side of the inequality instead of subtracting when simplifying $33g + 10 \leq 386$.

D He subtracted 10 from the right side of the inequality instead of adding when simplifying $33g + 10 \leq 386$.

Dennis made a scale drawing of his backyard, using the scale $\frac{1}{4}$ inch = 3 feet. The rectangular swimming pool was 2 inches long and 1 inch wide in the drawing. What was the area of the actual swimming pool?

A 12 ft^2

B 24 ft^2

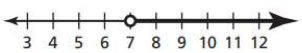
C 288 ft^2

D 576 ft^2

What is the value of $-\frac{3}{4} - \left(-\frac{3}{8}\right)$?

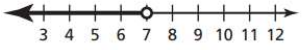
Kathy had less than 55 minutes to listen to songs played by her favorite band when she began listening. So far she has been listening for $35\frac{3}{4}$ minutes. Each of the songs lasts $2\frac{3}{4}$ minutes. Which inequality shows the number of additional songs she can listen to?

A



B

C

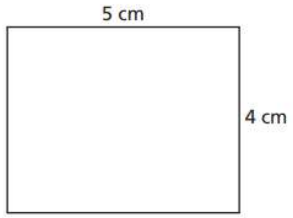


D

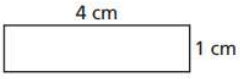
EOG Homework #2

Name_____

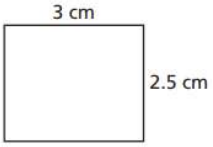
Juan's classroom is shaped like a rectangle. The room is 40 feet long and 25 feet wide. Which rectangle could be a scale drawing of Juan's classroom?



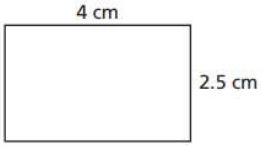
A



C

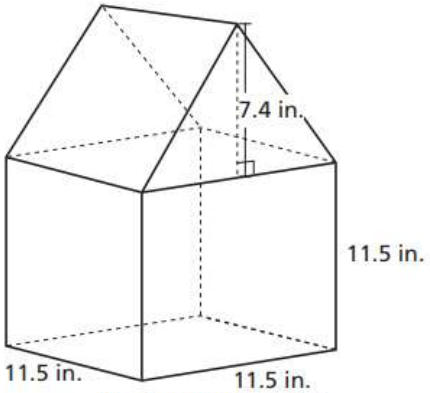


B



D

The diagram shows a birdhouse in Michael's back yard.



[not drawn to scale]

What is the volume of the birdhouse?

A 2,499.525 in.^{3}

B 2,010.2 in.^{3}

C 978.7 in.^{3}

D 489.325 in.^{3}

Sarah was cutting fabric for a quilt. She cut 5 equal pieces out of a strip of fabric that was $19\frac{1}{8}$ inches long. When she was finished cutting, Sarah had a leftover piece that was $2\frac{1}{4}$ inches long. How long was each piece that she cut for the quilt?

A $3\frac{3}{4}$ in.

B $3\frac{5}{8}$ in.

C $3\frac{1}{2}$ in.

D $3\frac{3}{8}$ in.

EOG Homework #2

Name_____

Greg randomly surveyed 25 students in his school district to find out if they ever had an overdue library book. The data are recorded in the table below.

Have You Ever Had an Overdue Library Book?				
Yes	No	No	No	Yes
No	Yes	Yes	No	No
No	No	No	Yes	Yes
No	No	No	No	No
Yes	No	Yes	Yes	No

According to the sample, about what percent of the students in the school district have had an overdue library book?

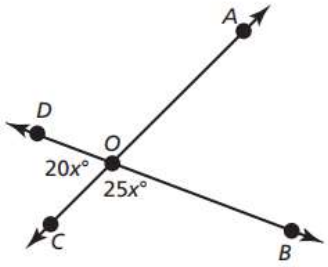
A 9%

B 16%

C 36%

D 64%

Lines $\overline{AC}$ and $\overline{BD}$ intersect at O as shown.



What is the measure of $\angle BOC$?

A 4°

B 45°

C 80°

D 100°

Cleo is 38 years old, which is twice as old as Clara will be in 7 years.

In how many years will Clara be as old as Cleo is now?

A 12 years

B 19 years

C 26 years

D 33 years

EOG Homework #2

Name_____

Chris used 45 feet of fencing to enclose a circular garden. What is the approximate radius of the garden? Use 3.14 for π.

A 51.27 ft

B 14.32 ft

C 7.17 ft

D 3.78 ft

The table shows the diameters in inches of a random sample of 10 tomatoes sold by two supermarket chains.

	Tomato Diameters (in.)
Supermarket Chain A	3.0, 2.5, 3.0, 3.0, 3.0, 2.5, 2.5, 3.0, 3.0, 2.5
Supermarket Chain B	2.5, 3.0, 2.0, 2.5, 3.0, 2.5, 2.0, 2.0, 2.0, 2.5

Which statement is ***best*** supported by the data?

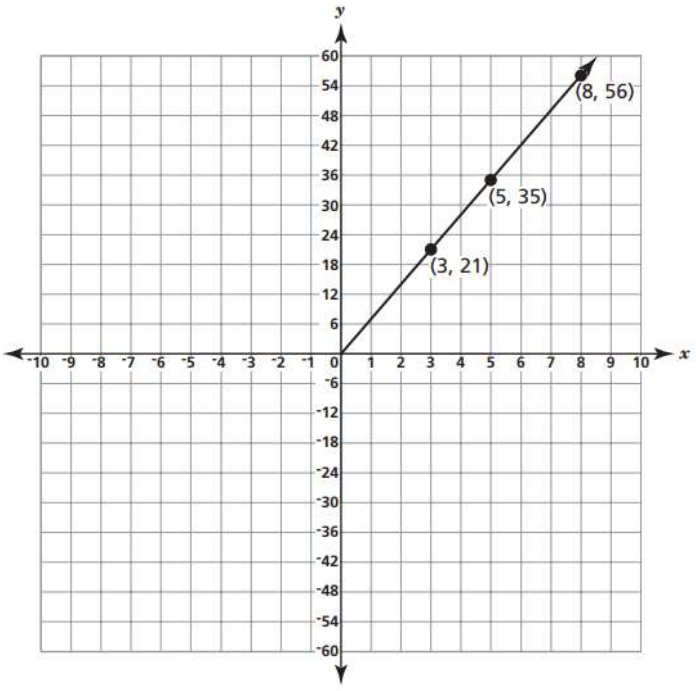
A On average, the tomatoes sold by supermarket chain A have a diameter about $\frac{1}{2}$ inch less than those sold by supermarket chain B.

B On average, the tomatoes sold by supermarket chain A have a diameter about 1 inch less than those sold by supermarket chain B.

C On average, the tomatoes sold by supermarket chain A have a diameter about 1 inch more than those sold by supermarket chain B.

D On average, the tomatoes sold by supermarket chain A have a diameter about $\frac{1}{2}$ inch more than those sold by supermarket chain B.

The graph below shows a proportional relationship, $y = kx$.



What is the constant of proportionality, k?