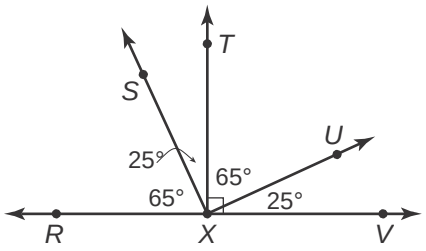
Mr. Powder
Assessment Review 7

Math 7R
Name: _____

Read each question. Then fill in the correct answer on the answer document provided by your teacher or on a sheet of paper.

1. Which of the following two angles are complementary?



A. ∠ *RXS* and ∠ *TXU*
B. ∠ *SXT* and ∠ *TXU*
C. ∠ *RXS* and ∠ *SXV*
D. ∠ *SXR* and ∠ *UXV*

2. A recipe calls for $2\frac{1}{3}$ packages of 3 pudding. How many batches can be made if 20 packages of pudding are available?

F. 8 batches
G. 9 batches
H. 10 batches
I. 11 batches

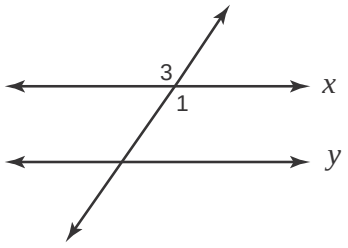
3. Greta packs tomatoes in boxes that weigh 1.4 kilograms when empty. The average tomato weighs 0.2 kilogram, and the total weight of a box filled with tomatoes is 11 kilograms. How many tomatoes are packed in each box?

4. What is the solution of the inequality below?

$$4n - 8 \leq 40$$

A. $n \leq 8$
C. $n \geq 8$
B. $n \leq 12$
D. $n \geq 12$

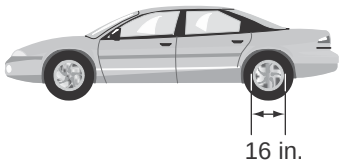
5. In the figure below, line *x* is parallel to line *y*.



What type of angles are ∠ 1 and ∠ 3?

F. vertical angles
G. adjacent angles
H. right angles
I. regular angles

6. Thom has a scale model of his car. The scale is 1 : 12. If the actual car has 16-inch wheels, what size are the wheels on the scale model?



A. 1.3 in.
B. 2 in.
C. 32 in.
D. 40 in.

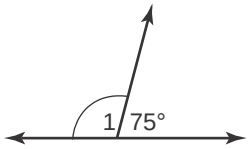
7. In triangle *ABC*, $m\angle A = 55°$ and $m\angle B = 35°$. Classify the triangle by its angles.

8. A stained glass window is in the shape of an equilateral triangle. What is the measure of one interior angle of the triangle?

F. 30°
G. 60°
H. 90°
I. 180°

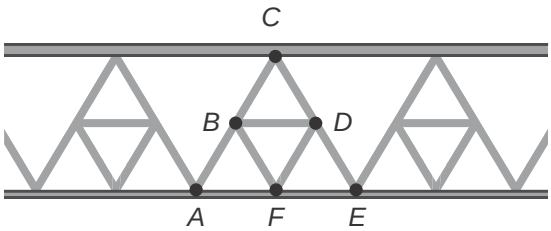
9. In *FGH*, $m\angle G = 30°$ and $m\angle H = 100°$. What is the measure of $\angle F$?

10. What is the measure of $\angle 1$ in the figure?



A. 15°
B. 25°
C. 100°
D. 105°

11. The bridge structure is supported by the triangular braces as shown.



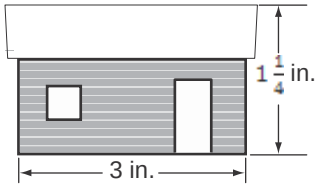
Triangles *ACE* and *ABF* are similar triangles. The scale factor is 0.5. If *CE* = 10 feet, what is the length of *BF*?

F. 2.5 ft
G. 5 ft
H. 6 ft
I. 12 ft

12. Jesse purchased a new digital camera for $499 and a printer for $299 including tax. He plans to pay the total amount in 6 equal monthly payments. What is a reasonable estimate of the amount he will pay each month?

A. $66.50
B. $133.00
C. $155.00
D. $165.00

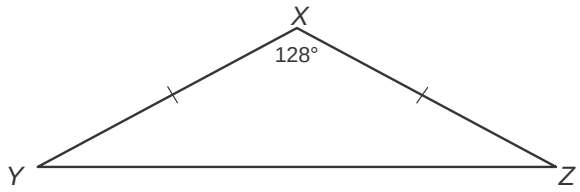
13. An architect created the scale drawing below showing a wall of a child's playhouse.



Which of these was the scale used for the drawing if the actual height of the wall is $7\frac{1}{2}$ feet?

F. 1 in. = 1 ft
G. $\frac{1}{2}$ in. = 1 ft
H. 2 in. = 12 ft
I. $\frac{1}{4}$ in. = 1 ft

14. Use triangle *XYZ* to answer the following questions.



Part A Classify angle *X*.

Part B Classify angle *Y*.

Part C Classify the triangle by its sides and by its angles.

Part D If $\angle Y$ is congruent to $\angle Z$, find the measure of $\angle Z$. Explain.