

Gillespie

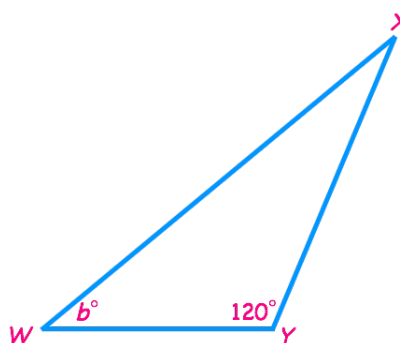
Course 3: Learning Check Ch2c

Rational Numbers

Directions: When working each of the following questions, be sure to show all work.

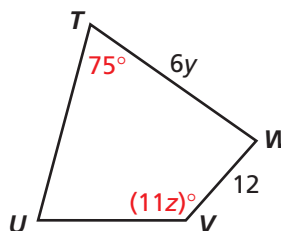
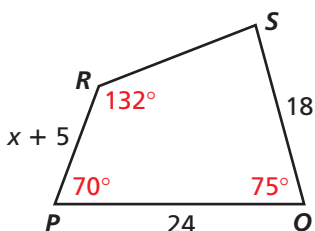
1) If $m\angle X = 35$, what is the value of b° ?

- a) 25
- b) 30
- c) 35
- d) 40



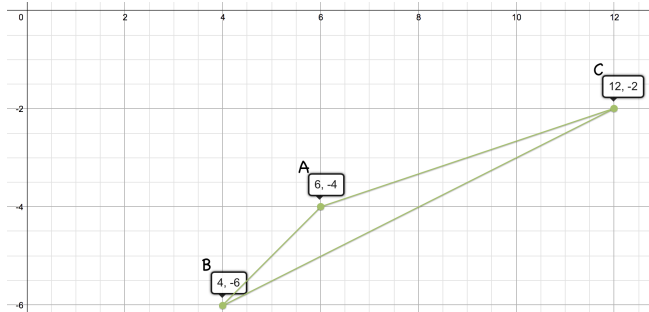
2) Quadrilateral $QPRS \cong TUVW$. Find z

- a) 12
- b) 11
- c) 6.8
- d) 75



- 3) Dilate the figure's coordinates $A(6, -4)$; $B(4, -6)$; $C(12, -2)$; by a scale factor of $\frac{1}{4}$. What are the vertices of the image?

- a) $A' \left(1\frac{1}{2}, 1\right)$; $B' \left(1\frac{1}{2}, 1\right)$; $C' \left(3, \frac{1}{2}\right)$
 b) $A' \left(1\frac{1}{2}, 1\right)$; $B' \left(1, -1\frac{1}{2}\right)$; $C' \left(-\frac{1}{2}, 3\right)$
 c) $A' \left(1\frac{1}{2}, -1\right)$; $B' \left(1, 1\frac{1}{2}\right)$; $C' \left(-3, \frac{1}{2}\right)$
 d) $A' \left(1\frac{1}{2}, -1\right)$; $B' \left(1, -1\frac{1}{2}\right)$; $C' \left(3, -\frac{1}{2}\right)$



- 4) Jonny is 6 feet tall and casts a shadow 12 feet long. At the same time, a tree casts a shadow 24 feet long. How tall is the tree?

(hint: draw two right triangles, and set up a proportion)

- a) 12 ft
 b) 18 ft
 c) 24 ft
 d) 48 ft

- 5) The two triangles are similar. Determine the perimeter of the second figure.

- a) 24 mm
 b) 36 mm
 c) 46 mm
 d) 66 mm

