Name _____ Date _____ Class_____

# MODULE 17 Using Similar Triangles

## LESSON 17-1

### Practice and Problem Solving: A/B

1. 4
2. $5\frac{2}{5}$
3. 20
4. 30
5. $PN = 66$ and $QM = 88$. $\frac{LP}{PN} = \frac{9}{66} = \frac{3}{22}$ and $\frac{LQ}{QM} = \frac{12}{88} = \frac{3}{22}$. Because $\frac{LP}{PN} = \frac{LQ}{QM}$, $\overline{PQ} \parallel \overline{NM}$ by the Conv. of the $\Delta$ Proportionality Theorem.
6. $\frac{FW}{WD} = \frac{1.5}{2.5} = \frac{3}{5}$ and $\frac{FX}{XE} = \frac{2.1}{3.5} = \frac{3}{5}$. Because $\frac{FW}{WD} = \frac{FX}{XE}$, $\overline{WX} \parallel \overline{DE}$ by the Conv. of the $\Delta$ Proportionality Theorem.

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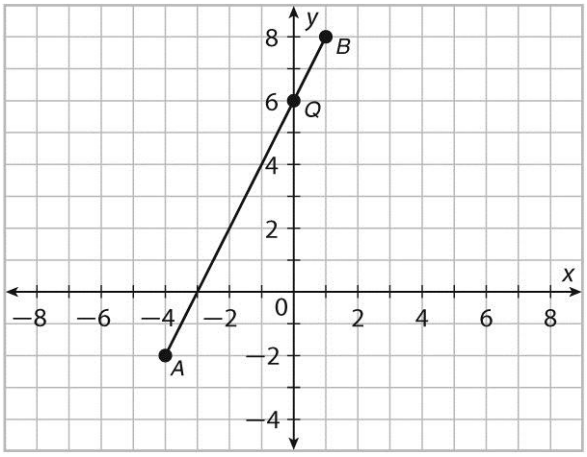
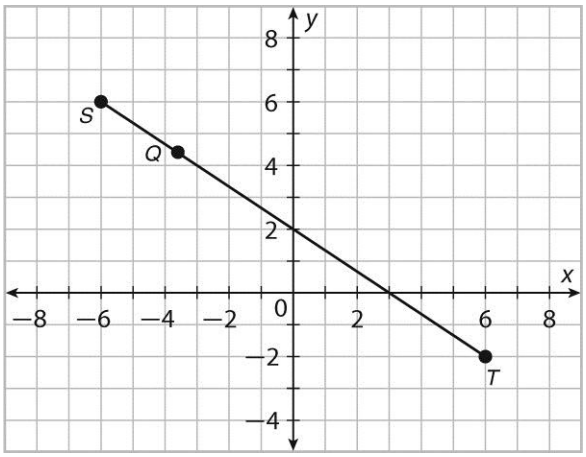
LESSON 17-2

## Practice and Problem Solving: A/B

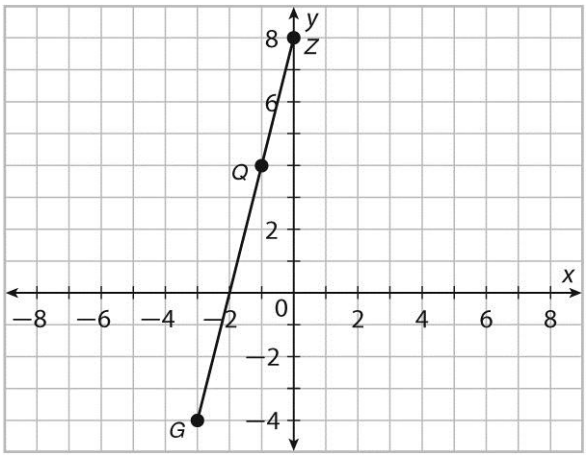
1. $Q(0, 6)$



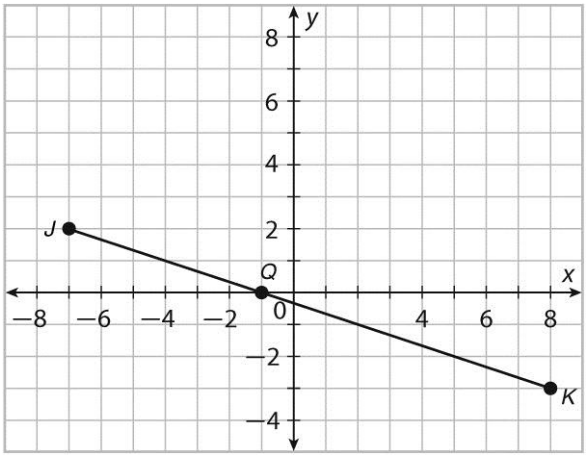

2. $Q(-3.6, 4.4)$




3. $Q(-1, 4)$




4. $Q(-1, 0)$



Name _____ Date _____ Class_____

LESSON 17-3

## Practice and Problem Solving: A/B

1. 17 ft
2. 16 ft
3. The rays of the sun are parallel, so $\overline{AC}$ and $\overline{DF}$ are parallel. Thus, $\angle C$ and $\angle F$ are congruent. $\angle B \cong \angle E$ because they are right angles. Thus, the triangles are similar by the *AA* Similarity Criterion.
4. 67.5 m
5. 69 yd, 1 ft
6. 33 ft
7. 7.5 m

## LESSON 17-4

## Practice and Problem Solving: A/B

1. Possible answers: $\Delta JKL$
   $\angle JKL \cong \angle JLM \cong \angle LKM$
2. $\angle DEF \cong \angle GED \cong \angle GDF$
3. $\angle WXY \cong \angle ZXW \cong \angle ZWY$
4. 1
5. 15
6. $6\sqrt{2}$
7. $\frac{3\sqrt{2}}{2}$
8. $2\sqrt{35}$
9. 7
10. $\sqrt{35}$; $2\sqrt{15}$; $2\sqrt{21}$
11. 30; $10\sqrt{3}$; $20\sqrt{3}$
12. 2; $\sqrt{15}$; $\sqrt{10}$
13. $3\sqrt{10}$; $3\sqrt{35}$; $3\sqrt{14}$
14. 144; 60; 156
15. 12; $9\sqrt{13}$; $6\sqrt{13}$
16. 3807 feet