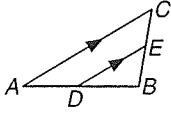


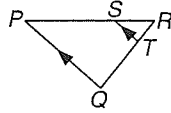
6-4 Practice

Parallel Lines and Proportional Parts

1. If $AD = 24$, $DB = 27$, and $EB = 18$, find CE .

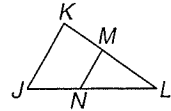


2. Find x , QT , and TR if $QT = x + 6$, $SR = 12$, $PS = 27$, and $TR = x - 4$.



Determine whether $\overline{JK} \parallel \overline{NM}$.

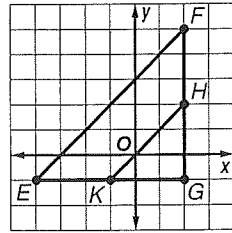
3. $JN = 18$, $JL = 30$, $KM = 21$, and $ML = 35$



4. $KM = 24$, $KL = 44$, and $NL = \frac{5}{6}JN$

COORDINATE GEOMETRY For Exercises 5 and 6, use the following information.

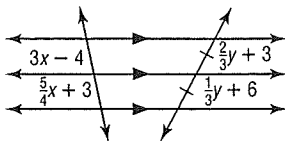
Triangle EFG has vertices $E(-4, -1)$, $F(2, 5)$, and $G(2, -1)$. Point K is the midpoint of \overline{EG} and H is the midpoint of \overline{FG} .



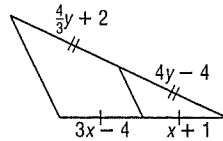
5. Show that \overline{EF} is parallel to \overline{KH} .

6. Show that $KH = \frac{1}{2}EF$.

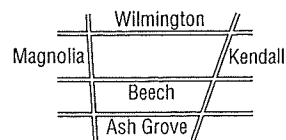
7. Find x and y .



8. Find x and y .



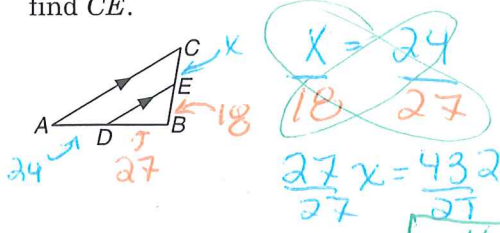
9. **MAPS** The distance from Wilmington to Ash Grove along Kendall is 820 feet and along Magnolia, 660 feet. If the distance between Beech and Ash Grove along Magnolia is 280 feet, what is the distance between the two streets along Kendall?



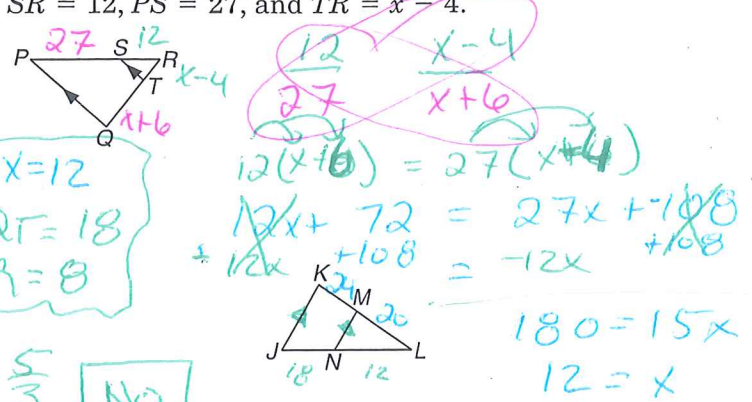
6-4 Practice

Parallel Lines and Proportional Parts

1. If $AD = 24$, $DB = 27$, and $EB = 18$, find CE .



2. Find x , QT , and TR if $QT = x + 6$, $SR = 12$, $PS = 27$, and $TR = x - 4$.



Determine whether $\overline{JK} \parallel \overline{NM}$.

3. $JN = 18$, $JL = 30$, $KM = 21$, and $ML = 35$

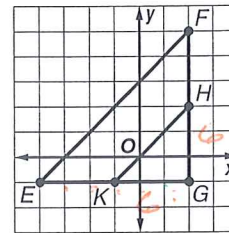
Handwritten notes for problem 3:
 $NK = JL - JN = 30 - 18 = 12$
 $\frac{12}{18} = \frac{2}{3}$
 $\frac{35}{21} = \frac{5}{3}$
 $\frac{2}{3} \neq \frac{5}{3}$ [No]

4. $KM = 24$, $KL = 44$, and $NL = \frac{5}{6}JN$

Handwritten notes for problem 4:
 $\frac{5}{6} \cdot 24 = 20$ ✓
 $20 = 20$ ✓
 parallel

COORDINATE GEOMETRY For Exercises 5 and 6, use the following information.

Triangle EFG has vertices $E(-4, -1)$, $F(2, 5)$, and $G(2, -1)$. Point K is the midpoint of \overline{EG} and H is the midpoint of \overline{FG} .



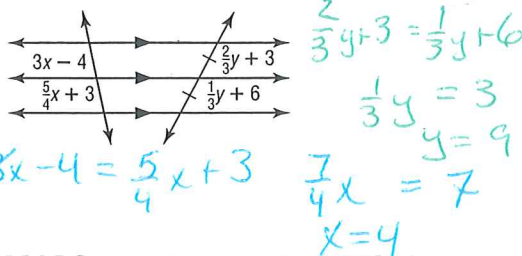
5. Show that \overline{EF} is parallel to \overline{KH} .

Handwritten notes for problem 5:
 $EF: \frac{\text{rise}}{\text{run}} = \frac{1}{1}$
 $KH: \frac{\text{rise}}{\text{run}} = \frac{1}{1}$
 yes

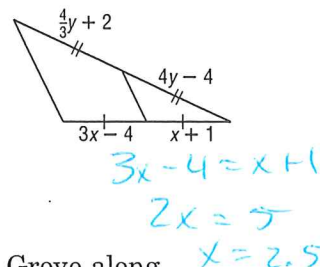
6. Show that $KH = \frac{1}{2}EF$.

Handwritten notes for problem 6:
 $EF = \sqrt{6^2 + 6^2}$
 $EF = \sqrt{72} = 6\sqrt{2}$
 $KH = \sqrt{3^2 + 3^2}$
 $= \sqrt{18} = 3\sqrt{2}$

7. Find x and y .



8. Find x and y .



Handwritten notes for problem 8:
 $\frac{4}{3}y + 2 = \frac{12}{3}y - 4$
 $6 = \frac{8}{3}y$
 $\frac{9}{4} = y$

9. **MAPS** The distance from Wilmington to Ash Grove along Kendall is 820 feet and along Magnolia, 660 feet. If the distance between Beech and Ash Grove along Magnolia is 280 feet, what is the distance between the two streets along Kendall?



Handwritten notes for problem 9:
 $\frac{280}{660} = \frac{x}{820}$
 $660x = 229,600$
 $x = 347.9 \text{ ft}$