Warm Up October 22, 2018

1.) Find the missing coordinate(s): (1, 1) and (4, y) if d = 5.

$d=\sqrt{(x_2-x_1)^2+(y_2-y_1)^2}$

$5=\sqrt{(4-1)^2+(y-1)^2}$

$(5)^2=\left(\sqrt{9+(y-1)^2}\right)^2$

$25=9+(y-1)^2$

$-9 \quad -9$

$\sqrt{16}=\sqrt{(y-1)^2}$

$+4=y-1$

$+1 \quad +1$

$5=y$

$-4=y-1$

$+4 \quad +4$

$0=y+3$

$-3 \quad -3$

$-3=y$

$y=-3$

$y=5$

2.) Write the equation of a line perpendicular to $y=\boxed{-}x+3$ and passes through the point (2, -1).

$y=mx+b$

$m=-1$

$-\frac{1}{1}$

$m=1$

$y-y_1=m(x-x_1)$

$y+1=1(x-2)$

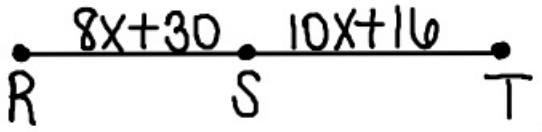
$y+1=x-2$

$y=x-3$

3.) If S is the midpoint of line segment RT and RS = 8x+30 and ST = 10x+16, find the following values:

x = 7 ST = 86

RS = 86 RT = 172



$8x+30=10x+16$

$-8x \quad -8x$

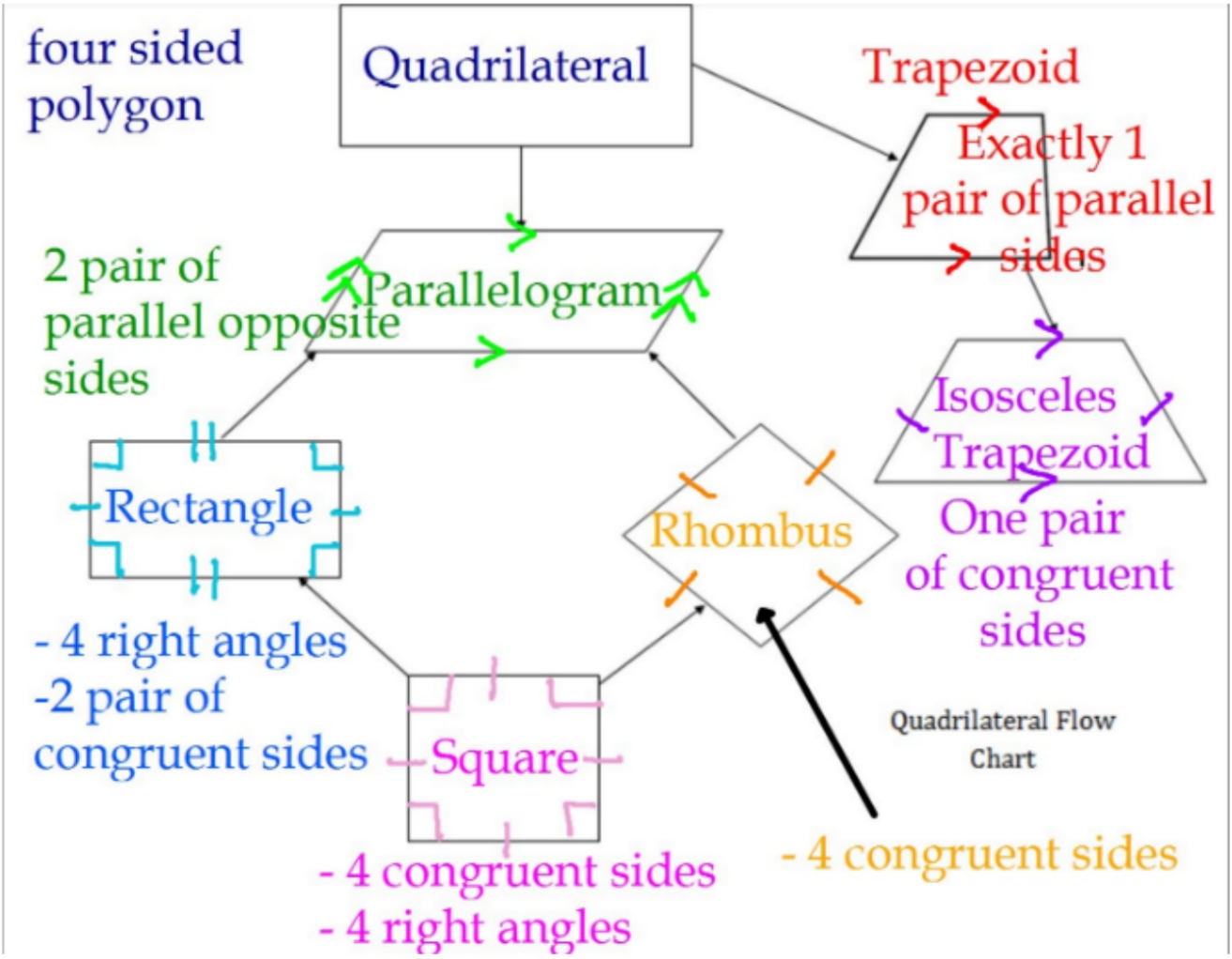
$30=2x+16$

$14=2x$

$7=x$

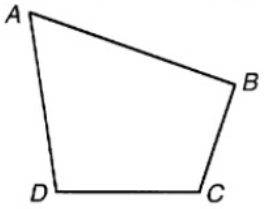
$8(7)+30=86$

$10(7)+16=86$

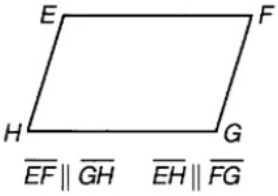

four sided polygon
Quadrilateral
Trapezoid
Exactly 1 pair of parallel sides
2 pair of parallel opposite sides
Parallelogram
Isosceles Trapezoid
One pair of congruent sides
Rectangle
Rhombus
- 4 right angles
-2 pair of congruent sides
Square
Quadrilateral Flow Chart
- 4 congruent sides
- 4 congruent sides
- 4 right angles

Why Do Airlines Think They Show the Best Movies?

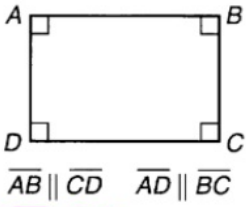
Under each figure, circle the number-letter pair next to each word that correctly names the figure. Write the letter in the matching numbered box at the bottom of the page.



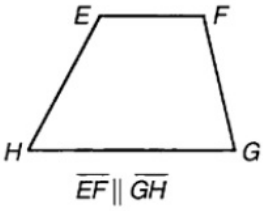
- 11 • F parallelogram
- 26 • H polygon
- 14 • D rectangle
- 32 • C rhombus
- 8 • E quadrilateral



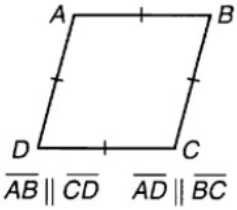
- 2 • W rectangle
- 23 • T trapezoid
- 19 • U parallelogram
- 30 • I quadrilateral
- 4 • M square



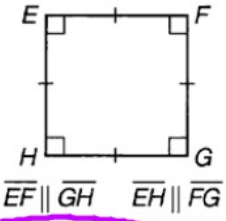
- 34 • E polygon
- 6 • P square
- 11 • R parallelogram
- 17 • G rhombus
- 2 • O rectangle



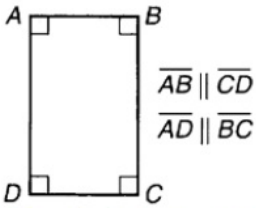
- 27 • U parallelogram
- 14 • A quadrilateral
- 23 • N trapezoid
- 1 • T isosceles trapezoid



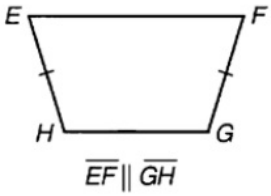
- 22 • A square
- 10 • K rectangle
- 6 • Y rhombus
- 30 • L trapezoid
- 32 • D parallelogram



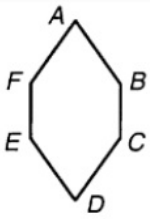
- 27 • E square
- 4 • O parallelogram
- 31 • R trapezoid
- 22 • I rectangle
- 17 • S rhombus



- 25 • T quadrilateral
- 10 • E parallelogram
- 1 • N rectangle
- 15 • B square
- 5 • L trapezoid

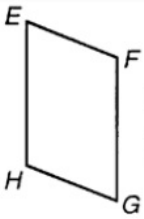


- 20 • F rhombus
- 33 • R parallelogram
- 31 • D trapezoid
- 15 • L isosceles trapezoid



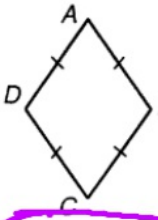
$\overline{AB} \parallel \overline{DE}$
$\overline{BC} \parallel \overline{EF}$
$\overline{CD} \parallel \overline{FA}$

- 26 • X parallelogram
- 34 • J quadrilateral
- 13 • P rectangle
- 29 • S trapezoid
- 5 • D polygon



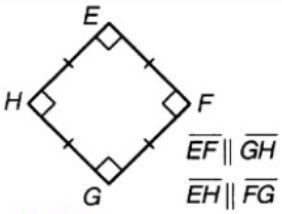
$\overline{EF} \parallel \overline{GH}$
$\overline{EH} \parallel \overline{FG}$

- 3 • R rectangle
- 20 • T parallelogram
- 16 • D rhombus
- 21 • H trapezoid
- 9 • V polygon



$\overline{AB} \parallel \overline{CD}$
$\overline{AD} \parallel \overline{BC}$

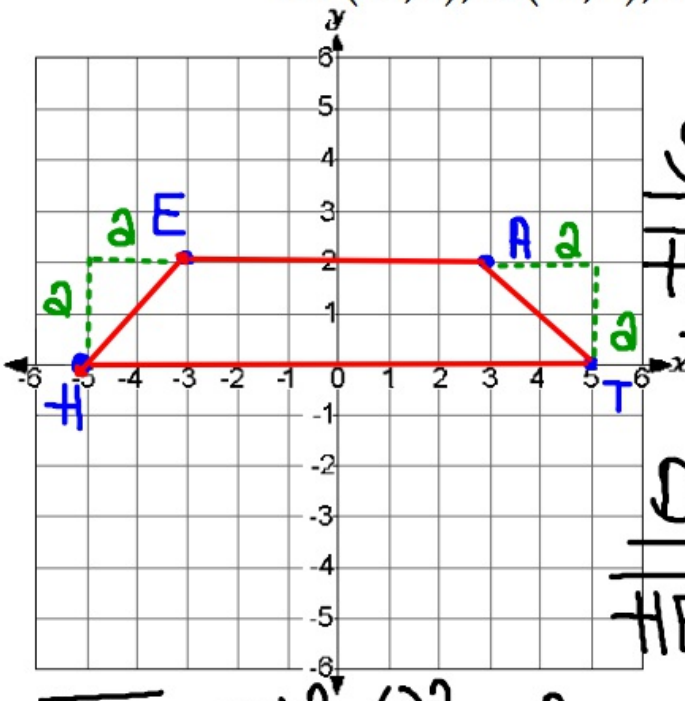
- 33 • L rhombus
- 7 • S square
- 28 • N rectangle
- 13 • W quadrilateral
- 18 • P trapezoid



$\overline{EF} \parallel \overline{GH}$
$\overline{EH} \parallel \overline{FG}$

- 3 • B rectangle
- 18 • O parallelogram
- 29 • M rhombus
- 24 • S trapezoid
- 16 • K square

H (-5,0), E(-3,2), A(3,2), T (5,0)



Slopes

$\overline{HE} = 1$ $\overline{AT} = -1$

$\overline{EA} = 0$ $\overline{HT} = 0$

Distances

$\overline{HE} = a^2 + b^2 = c^2$

$= (a)^2 + (a)^2 = c^2$

$= \sqrt{8} = \sqrt{c^2}$

$\overline{HE} = c = \sqrt{8}$

$\overline{EA} = 6$

$\overline{AT} = (a)^2 + (a)^2 = c^2$

$= \sqrt{8} = \sqrt{c^2}$

$\overline{AT} = c = \sqrt{8}$

$\overline{HT} = 10$

Quadrilateral HEAT is an isosceles trapezoid because sides HE and AT are congruent and sides EA and HTare parallel.