Quadrilaterals Test Review

Give the most specific name for the quadrilateral. Explain your reasoning.

1.

12   14

12   14

2.

3.

4.

120°

60°
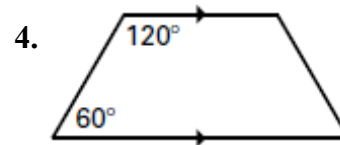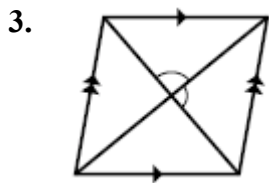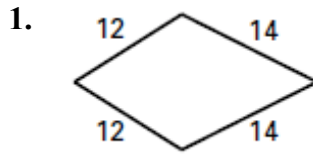
Find the sum of the measures of the interior angles of the indicated convex polygon.

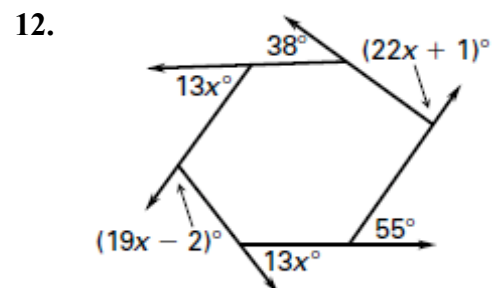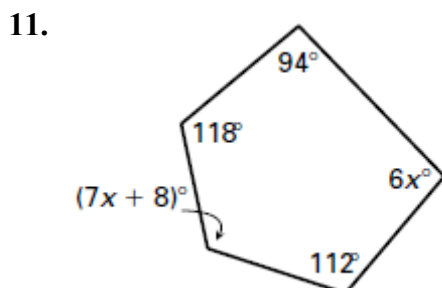**5.** Dodecagon   **6.** 24-gon   **7.** 32-gon   **8.** 36-gon

Find the value of n for each regular n-gon described.

9. Each interior angle of the regular n-gon has a measure of 162°.

10. Each exterior angle of the regular n-gon has a measure of 5°.

Find the value of x. Show all of your work.

11.

94°

118°

$(7x + 8)°$

$6x°$

112°

12.

38° $(22x + 1)°$

$13x°$

$(19x - 2)°$

55°

$13x°$

13. The measure of one interior angle of a parallelogram is 42 degrees more than twice the measure of another angle. Find the measure of each angle.

14. The measure of one interior angle of a parallelogram is 30 degrees less than 9 times the measure of another angle. Find the measure of each angle.

The diagonals of rhombus *STUV* intersect at *W*. Given that *m* ∠ *UVT* = 31.8°, *TU* = 20, and *TW* = 17, find the indicated measure.

15. *m* ∠ *UVS*   **16.** *m* ∠ *TWU*
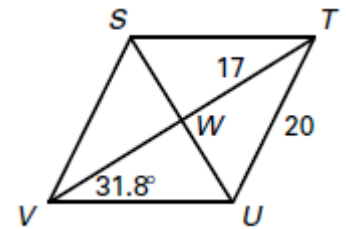
17. *m* ∠ *TUV*   **18.** *UW*
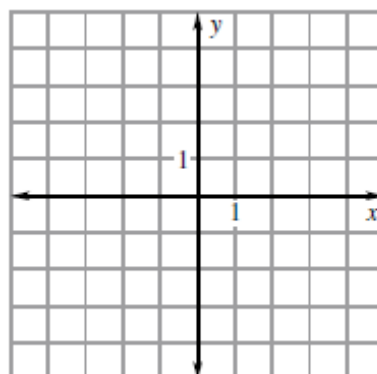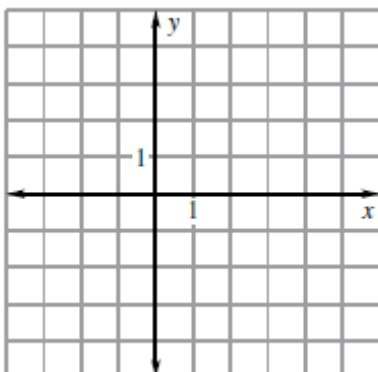
19. *SU*   **20.** *VT*

Use the given vertices to graph Parallelogram DEFG. Classify Parallelogram DEFG. Explain your reasoning.
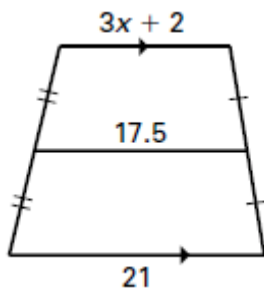
21. *D*(0, 2), *E*(5, 2),
     F(2, –2), *G*(–3, –2)

22. *D*(–1, 4), *E*(2, 4),
     F(2, –3), *G*(–1, –3)

Find the value of *x*.

23.

3x + 2

17.5

21

24.

10x − 2   13   4x

PQRS is a kite. Find *m* ∠ *Q*.

25.

Q

P   44.2°   72.6° R

S

26.

P

119.74°

S   Q

77.1°

R
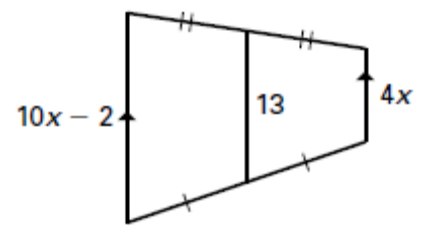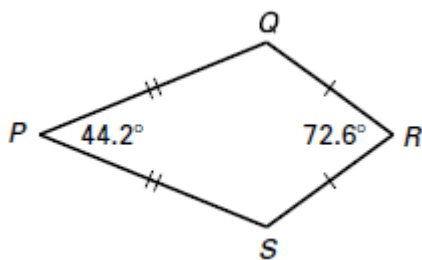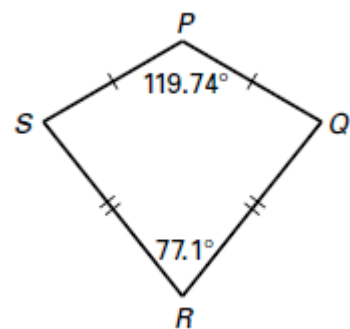
Points *D*, *E*, *F*, and *G* are the vertices of a quadrilateral. Give the most specific name for *DEFG*. Explain your reasoning. You may use graph paper to graph the coordinates if you prefer.

27. *D*(3, 2), *E*(4, –1), *F*(3, –4), *G*(–3, –1)

28. *D*(0, 9), *E*(9, 0), *F*(0, –9), *G*(–9, 0)

29. *D*(–5, 1), *E*(2, 2), *F*(4, –5), *G*(–5, –5)

30. *D*(–2, 5), *E*(3, 6), *F*(7, 2), *G*(–3, 0)