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Choose the best answer.

24. To the nearest tenth, what is the distance between the points (10, −11) and (−1, −5)?

F 2.6 H 12.5

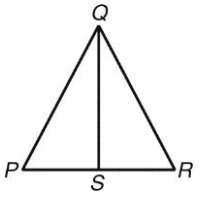
G 4.1 J 18.4

25. Which is next in the sequence? −1, 2, 7, 14, 23, . . .

A 24 C 32

B 25 D 34

26. In the figure, why is $\overline{QS} \cong \overline{QS}$?



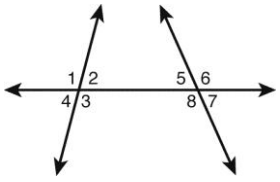
F All altitudes are congruent.

G Symmetric Property of Congruence

H Reflexive Property of Congruence

J Transitive Property of Congruence

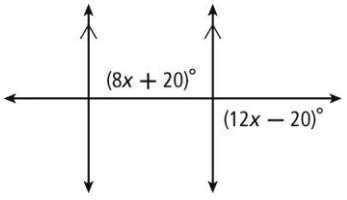
27. Which names a pair of corresponding angles?



A $\angle 1$ and $\angle 6$ C $\angle 2$ and $\angle 7$

B $\angle 3$ and $\angle 8$ D $\angle 3$ and $\angle 7$

28. What is the value of $12x - 20$?



F 34 H 90

G 88 J 100

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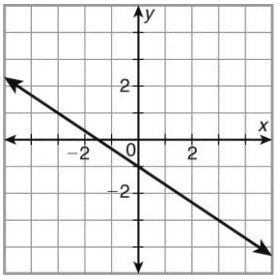
29. What is the slope of the line that passes through the points (–1, 9) and (4, 6)?

A $-\frac{5}{3}$ C $\frac{1}{5}$

B $-\frac{3}{5}$ D 5

30. Which is the equation of the line in the graph?



F $y = -2x - 3$

G $y = -\frac{3}{2}x - 3$

H $y = -3x - 1$

J $y = -\frac{2}{3}x - 1$

31. Two of the three angle measures in a triangle are given. Which are angle measures of an acute triangle?

A 11°, 79° C 11°, 89°

B 11°, 59° D 11°, 29°

32. Which polygon has line symmetry but not rotational symmetry?

F rectangle H rhombus

G square J kite

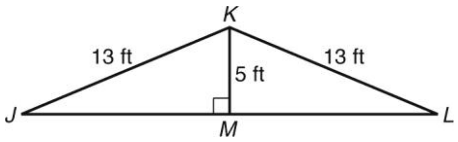
33. Which are the lengths of the sides of an obtuse triangle?

A 8, 11, 15 C 11, 11, 15

B 9, 12, 15 D 10, 12, 15

Name _____ Date _____ Class _____

The figure represents the wooden truss used to support the roof of a garage. Use the figure for Exercises 18 and 19.



34. What postulate or theorem can be used to prove $\triangle JKM \cong \triangle LKM$?

F SSS H ASA

G SAS J HL

35. Given that $ML = 12$ feet, how wide is the garage?

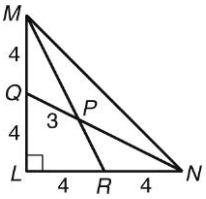
A 12 ft C 25 ft

B 24 ft D 26 ft

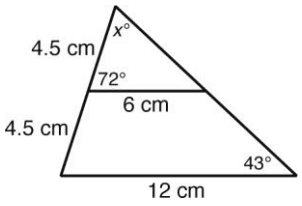
36. What is MP?

F $3\sqrt{2}$ H 6

G $4\sqrt{2}$ J 8



37. What is the value of x?



A 25 C 65

B 29 D 115

38. Which CANNOT be used to prove that a quadrilateral is a parallelogram?

F One pair of opposite angles is congruent.

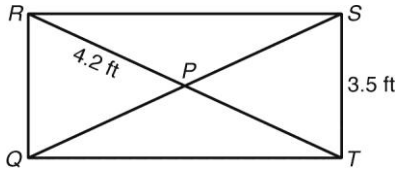
G Both pairs of opposite sides are parallel.

H Both pairs of opposite sides are congruent.

J One pair of opposite sides is both parallel and congruent.

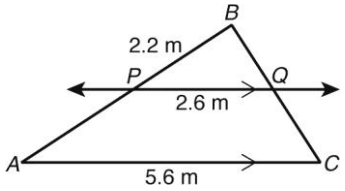
Name _____ Date _____ Class _____

39. The figure represents a rectangular gate with diagonal braces. To the nearest tenth, what is the width, QT, of the gate?



A 3.9 ft
B 4.9 ft
C 7.0 ft
D 7.6 ft

40. To the nearest tenth, what is AP?



F 1.0 m
G 2.2 m
H 2.5 m
J 4.7 m

41. Starla is 5 feet 9 inches tall. To find the height of a tree, she measured her shadow and the tree's shadow. Her shadow was 8 feet long when the tree's shadow was 30 feet long. To the nearest foot, how tall is the tree?

F 15 ft
G 22 ft
H 28 ft
J 42 ft

42. $\overline{MN}$ with endpoints $M(9, 3)$ and $N(-1, 5)$ is dilated by a scale factor of 2.5. To the nearest tenth, what is the length of $\overline{M'N'}$?

A 16.1
B 17.9
C 25.5
D 28.3

43. To the nearest thousandth, what is $\tan 77°$?

F 0.225
G 0.231
H 0.974
J 4.331

Name _____ Date _____ Class_____

44. When the angle of elevation to the sun is 26°, a flagpole casts a shadow that is 82 feet long. What is the height of the flagpole to the nearest foot?

F 36 ft H 74 ft

G 40 ft J 1

Name _____ Date _____ Class_____

Name _____ Date _____ Class_____

45. What is the volume of a rectangular prism that is 4 inches wide, 9 inches long, and 3 inches high?

F $36\ cm^3$ H $324\ cm^3$

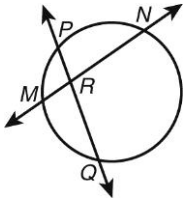
G $108\ cm^3$ J $432\ cm^3$

46. To the nearest tenth, what is the area of a sector of a circle of radius of 9 meters if the central angle is 50°?

A $1.3\ m^2$ C $35.3\ m^2$

B $5.1\ m^2$ D $70.7\ m^2$

Refer to the figure for Exercises 35 and 36.



47. $m\overset{\frown}{PN} = 78°$, $m\overset{\frown}{QN} = 163.5°$, and $m\overset{\frown}{MQ} = 72°$. What is $m\angle PRM$?

F 47° H 94°

G 57° J 105°

48. $PR = 6$, $NR = 15$, and $QR = 14$. To the nearest tenth, what is MR?

A 5.6 C 6.4

B 6.0 D 7.0

49. Use the two way frequency table to determine the percentage of underclassmen (freshmen and sophomores) that like the cafeteria food.

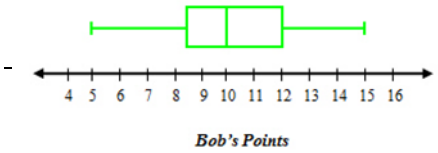
	Freshmen	Sophomores	Juniors	Seniors	Totals
Liked Food	50	77	85	82	294
Didn't like food	92	56	44	78	270
	142	133	129	160	564

A 23% C 46%

B 35% D 65%

Name _____ Date _____ Class_____

50. What is the median in the graph below?



A 8.5 C 11

B 10 D 12