

Practice for Q1 Exam 2

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Date _____ Period _____

Find the slope of each line.

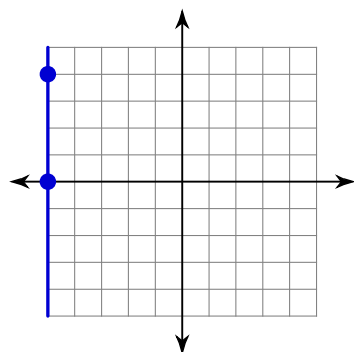
1) $2x - \frac{4}{3} = \frac{4}{3}y$

2) $-5y - 5 = -4x$

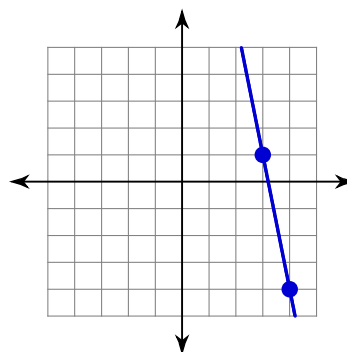
3) $-3y - x = 0$

4) $y = -2 + 2x$

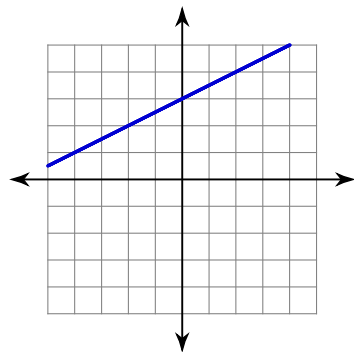
5)



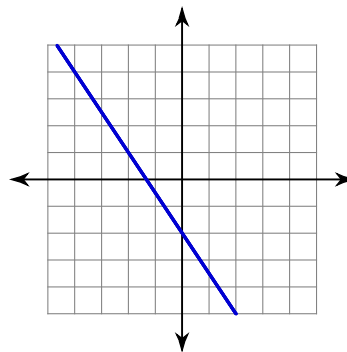
6)



7)



8)

**Find the slope of the line through each pair of points.**

9) $(7, -1), (10, -12)$

10) $(-6, -13), (12, -18)$

11) $(11, 20), (-11, -15)$

12) $(-18, 7), (2, 5)$

Find the slope of a line parallel to each given line.

13) $0 = -2y + 4x - 6$

14) $0 = -x - 3y - 12$

15) $5y = -20 + 7x$

Find the slope of a line perpendicular to each given line.

16) $-6 - 3y = 3x$

17) $y = x - 3$

18) $6 + 3y = -5x$

Write the slope-intercept form of the equation of each line given the slope and y-intercept.

19) Slope = -3 , y-intercept = -5

20) Slope = $\frac{2}{5}$, y-intercept = 2

21) Slope = -2 , y-intercept = 4

Write the slope-intercept form of the equation of the line through the given points.

22) through: $(1, 2)$ and $(-2, -5)$

23) through: $(2, -5)$ and $(5, 1)$

24) through: $(1, -5)$ and $(-3, 3)$

Write the slope-intercept form of the equation of the line through the given point with the given slope.

25) through: $(4, 2)$, slope = $-\frac{3}{4}$

26) through: $(-3, -4)$, slope = 3

27) through: $(2, 4)$, slope = undefined

Write the point-slope form of the equation of the line through the given point with the given slope.

28) through: $(2, -1)$, slope = 2

29) through: $(5, 4)$, slope = $\frac{9}{5}$

30) through: $(1, -1)$, slope = $\frac{1}{3}$

Write the point-slope form of the equation of the line described.

31) through: $(0, -2)$, parallel to $y = 1$

32) through: $(0, 0)$, parallel to $y = -\frac{2}{5}x + 1$

33) through: $(0, -5)$, parallel to $y = x + 2$

34) through: $(0, 2)$, perp. to $y = 5x - 1$

35) through: $(0, -5)$, perp. to $y = \frac{2}{5}x$

36) through: $(0, -3)$, perp. to $y = -\frac{1}{2}x$

Answers to Practice for Q1 Exam 2 (ID: 1)

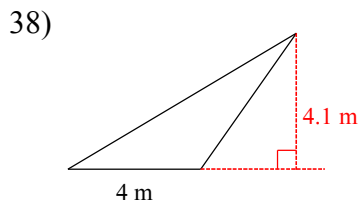
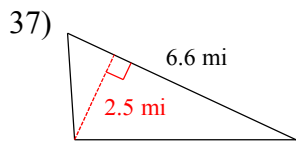
- | | | | |
|----------------------------------|--------------------------------------|-----------------------------|----------------------------|
| 1) $\frac{3}{2}$ | 2) $\frac{4}{5}$ | 3) $-\frac{1}{3}$ | 4) 2 |
| 5) Undefined | 6) -5 | 7) $\frac{1}{2}$ | 8) $-\frac{3}{2}$ |
| 9) $-\frac{11}{3}$ | 10) $-\frac{5}{18}$ | 11) $\frac{35}{22}$ | 12) $-\frac{1}{10}$ |
| 13) 2 | 14) $-\frac{1}{3}$ | 15) $\frac{7}{5}$ | 16) 1 |
| 17) -1 | 18) $\frac{3}{5}$ | 19) $y = -3x - 5$ | 20) $y = \frac{2}{5}x + 2$ |
| 21) $y = -2x + 4$ | 22) $y = \frac{7}{3}x - \frac{1}{3}$ | 23) $y = 2x - 9$ | 24) $y = -2x - 3$ |
| 25) $y = -\frac{3}{4}x + 5$ | 26) $y = 3x + 5$ | 27) $x = 2$ | 28) $y + 1 = 2(x - 2)$ |
| 29) $y - 4 = \frac{9}{5}(x - 5)$ | 30) $y + 1 = \frac{1}{3}(x - 1)$ | 31) $y + 2 = 0$ | 32) $y = -\frac{2}{5}x$ |
| 33) $y + 5 = x$ | 34) $y - 2 = -\frac{1}{5}x$ | 35) $y + 5 = -\frac{5}{2}x$ | 36) $y + 3 = 2x$ |

Practice for Q1Exam 2

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Find the area.



Find the area of each circle. Exact answer.

39) radius = 8 ft

40) radius = 11 cm

Find the circumference of each circle. Exact answer.

41) radius = 5 m

42) radius = 12 yd

Find the midpoint of the line segment with the given endpoints.

43) $(-1, 5)$, $(4, 8)$

44) $(6, -2)$, $(3, 7)$

45) $(9, 7)$, $(10, -3)$

46) $(3, 1)$, $(10, -3)$

Find the distance between each pair of points.

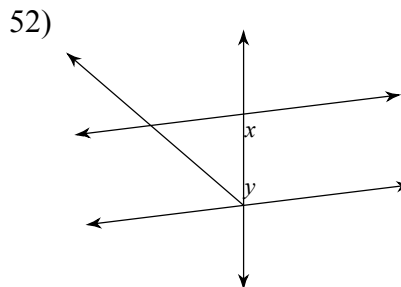
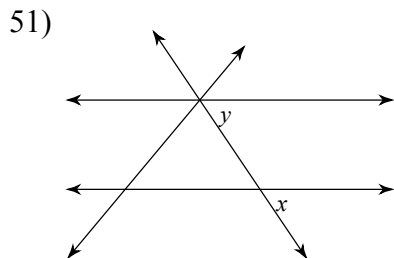
47) $(3, 1)$, $(3, -7)$

48) $(-6, -3)$, $(-4, -5)$

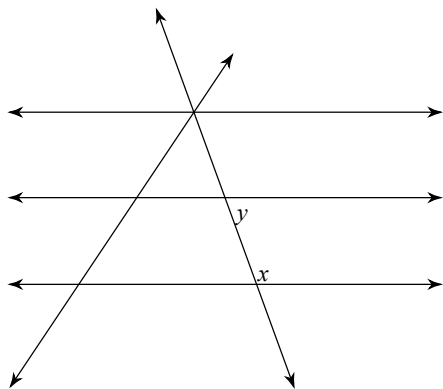
49) $(0, -4)$, $(-2, -6)$

50) $(-3, 1)$, $(1, -6)$

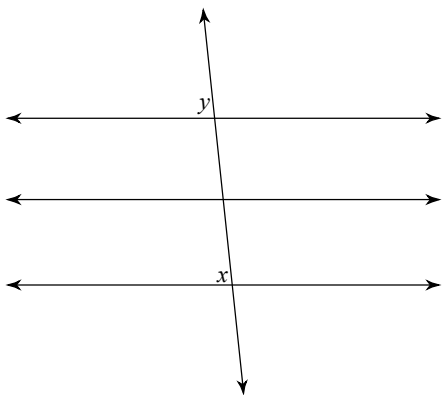
Identify each pair of angles as corresponding, alternate interior, alternate exterior, consecutive interior, or vertical.



53)

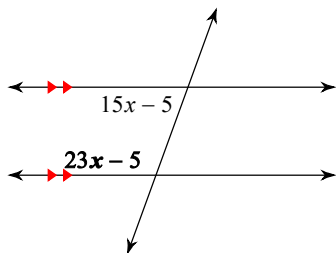


54)



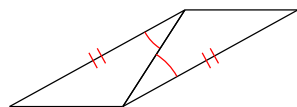
Find the measure of the angle indicated in bold.

55)

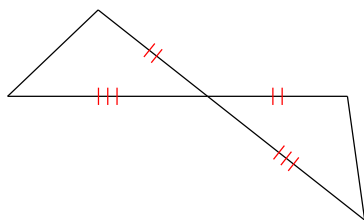


State if the two triangles are congruent. If they are, state how you know.

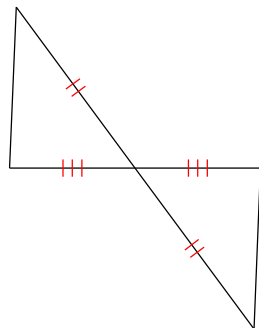
56)



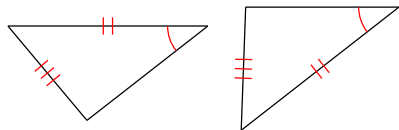
57)



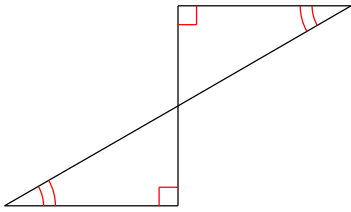
58)



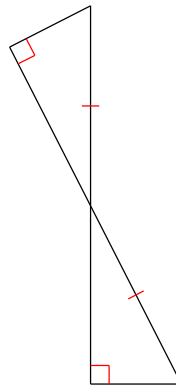
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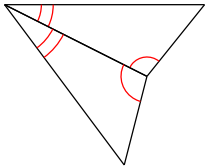
60)



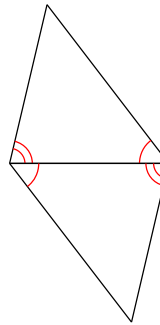
61)



62)

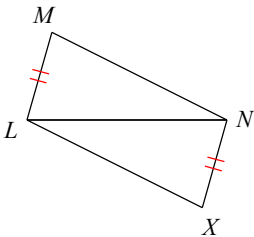


63)

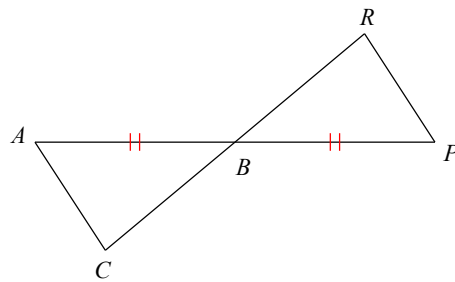


State what additional information is required in order to know that the triangles are congruent for the reason given.

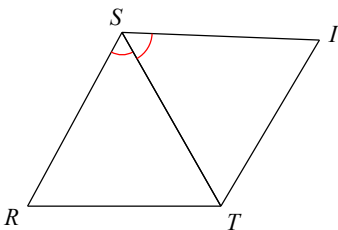
64) SSS



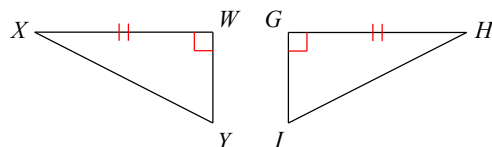
65) SAS



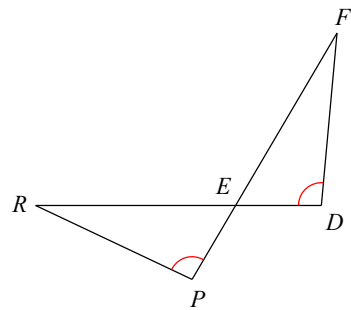
66) SAS



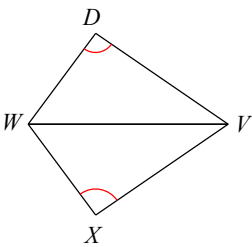
67) SAS



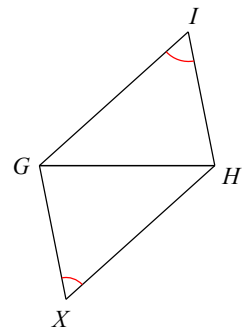
68) ASA



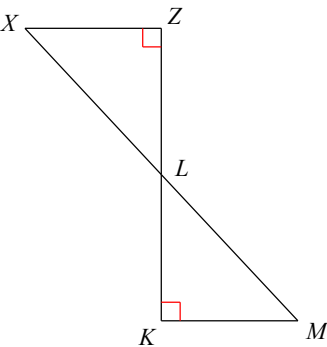
69) AAS



70) AAS

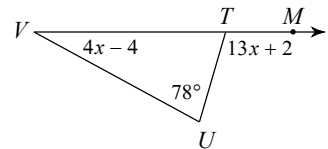


71) ASA

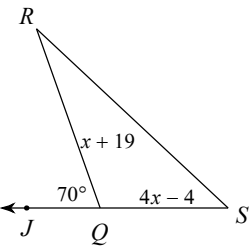


Solve for x .

72) Find $m\angle V$.



73) Find $m\angle S$.



State if the three numbers can be the measures of the sides of a triangle.

74) 11, 6, 20

75) 8, 10, 18

76) 7, 9, 3

77) 10, 11, 12

Answers to Practice for Q1Exam 2 (ID: 1)

- | | | | |
|--|---|--|---|
| 37) 8.25 mi^2 | 38) 8.2 m^2 | 39) $64\pi \text{ ft}^2$ | 40) $121\pi \text{ cm}^2$ |
| 41) $10\pi \text{ m}$ | 42) $24\pi \text{ yd}$ | 43) $\left(1\frac{1}{2}, 6\frac{1}{2}\right)$ | 44) $\left(4\frac{1}{2}, 2\frac{1}{2}\right)$ |
| 45) $\left(9\frac{1}{2}, 2\right)$ | 46) $\left(6\frac{1}{2}, -1\right)$ | 47) 8 | 48) $2\sqrt{2}$ |
| 49) $2\sqrt{2}$ | 50) $\sqrt{65}$ | 51) corresponding | 52) consecutive interior |
| 53) consecutive interior | 54) corresponding | 55) 110° | 56) SAS |
| 57) SAS | 58) SAS | 59) Not congruent | 60) <u>Not congruent</u> |
| 61) $\overline{AAS}$ | 62) $\overline{ASA}$ | 63) $\overline{ASA}$ | 64) $\overline{MN} \cong \overline{XL}$ |
| 65) $\overline{BC} \cong \overline{BR}$ | 66) $\overline{RS} \cong \overline{IS}$ | 67) $\overline{YW} \cong \overline{IG}$ | 68) $\overline{DE} \cong \overline{PE}$ |
| 69) $\angle XWV \cong \angle DWV$ or $\angle WVX \cong \angle WVD$ | | 70) $\angle IHG \cong \angle XGH$ or $\angle HGI \cong \angle GHX$ | |
| 71) $\overline{KL} \cong \overline{ZL}$ or $\overline{MK} \cong \overline{XZ}$ | 72) 28° | 73) 40° | |
| 74) No | 75) No | 76) Yes | 77) Yes |