

Name: _____

Date _____

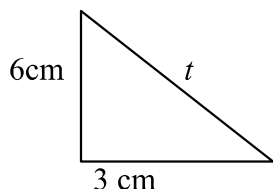
Ms. Kresovic's Geometry period _____

Extra Practice with the Pythagorean Theorem

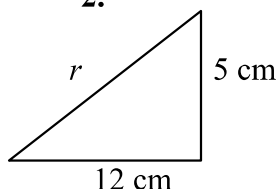
Find the EXACT length of the missing side in the following examples.

Show all work (here or on a separate piece of loose leaf)!

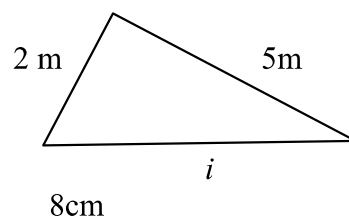
1.



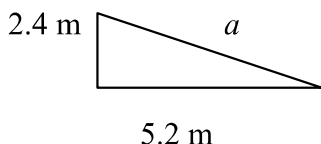
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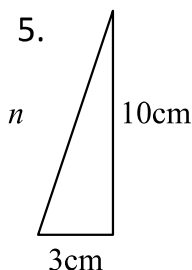
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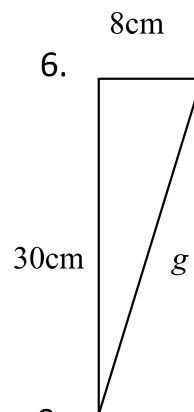
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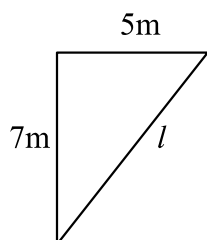
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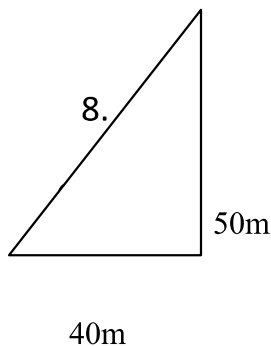
6.



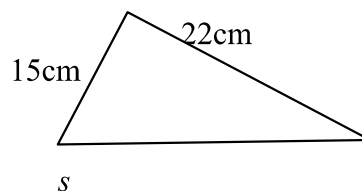
7.



8.



9.



What is the EXACT length of the hypotenuse, c, of the following right angle triangles? Show all work!

10. $a = 3$; $b = 4$; $c = ?$

15. $a = 8$; $b = 10$; $c = ?$

11. $a = 6$; $b = 8$; $c = ?$

16. $a = 15$; $b = 17$; $c = ?$

12. $a = 12$; $b = 5$; $c = ?$

17. $a = 40$; $b = 50$; $c = ?$

13. $a = 9$; $b = 12$; $c = ?$

18. $a = 4$; $b = 2$; $c = ?$

14. $a = 15$; $b = 20$; $c = ?$

19. $a = 1.2$; $b = 3.5$; $c = ?$

20. A ladder is leaning against the side of a 10m house. If the base of the ladder is 3m away from the house, how tall is the ladder? **Please draw a diagram and show all work.**

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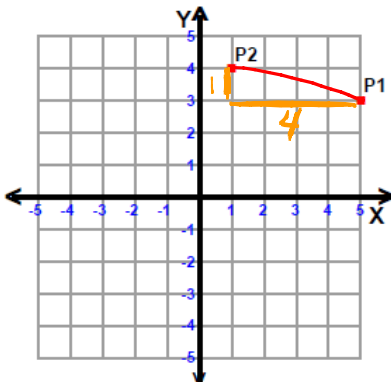
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Ms. Kresovic's Geometry period _____

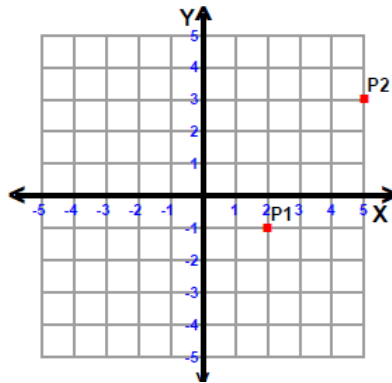
Find the exact distance between the given points.

21.

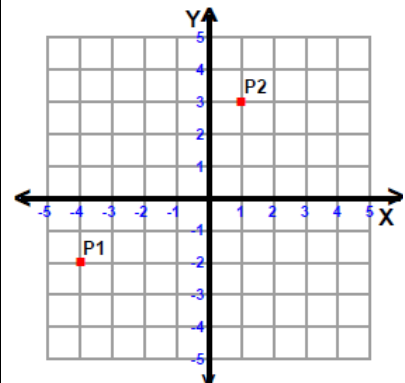
$$\sqrt{1^2 + 4^2} = \sqrt{17} = d$$



22.



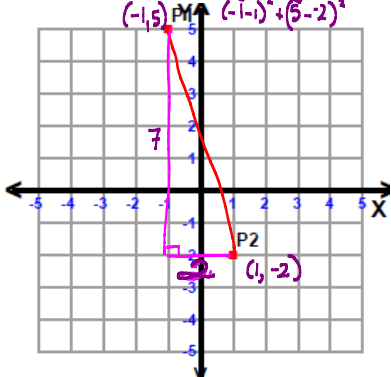
23.



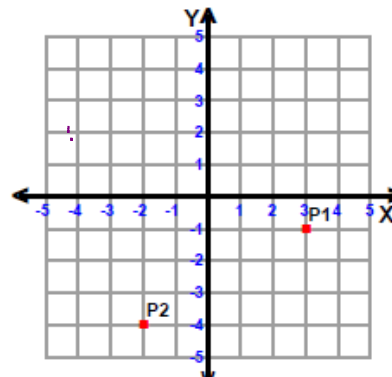
24.

$$\sqrt{2^2 + 3^2} = \sqrt{4+9} = \sqrt{13}$$

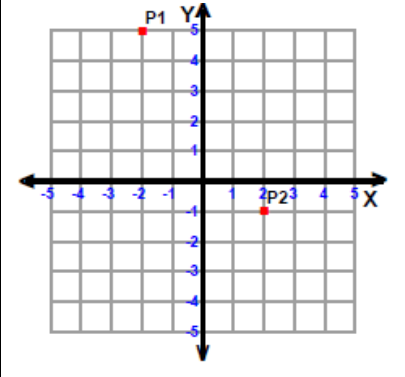
$$\sqrt{(-1-1)^2 + (5-2)^2} = \sqrt{4+9} = \sqrt{13}$$



25.

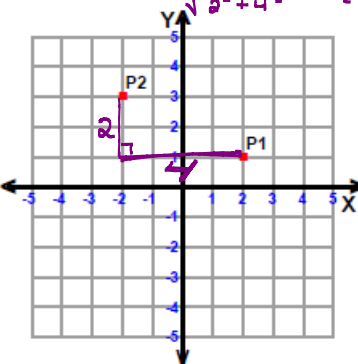


26.

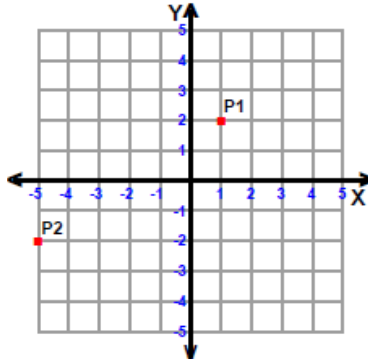


27.

$$\sqrt{\Delta x^2 + \Delta y^2} = \sqrt{3^2 + 4^2} = 5$$



28.



29. $P_1 = (-5, 10)$,
 $P_2 = (-12, 9)$

30. $P_1 = (8, 4)$, $P_2 = (5, 5)$

$$\begin{aligned} &\sqrt{\Delta x^2 + \Delta y^2} \\ &\sqrt{(8-5)^2 + (4-5)^2} \\ &\sqrt{3^2 + (-1)^2} \\ &\sqrt{9+1} = \sqrt{10} \end{aligned}$$

31. $P_1 = (5, 8)$, $P_2 = (-3, 1)$

32. $P_1 = (10, -1)$,
 $P_2 = (10, -8)$