

Name _____ Date _____



Skills Maintenance

Square Roots

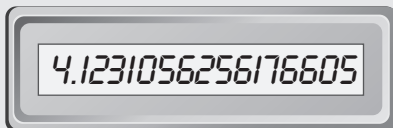
Activity 1

Find the square root of each number. Use a calculator to find the answers to numbers that are not perfect squares. Round decimal numbers to the nearest hundred-thousandth.

Model

$$\sqrt{17} \quad \underline{\hspace{2cm}} \text{ or } \underline{\hspace{2cm}}$$

Using a calculator, you get this answer.



Round your answer.

$$\sqrt{17} \quad \underline{4.12311} \text{ or } \underline{-4.12311}$$

1. $\sqrt{144}$ _____ or _____
2. $\sqrt{145}$ _____ or _____
3. $\sqrt{5}$ _____ or _____
4. $\sqrt{4}$ _____ or _____
5. $\sqrt{10}$ _____ or _____
6. $\sqrt{9}$ _____ or _____
7. $\sqrt{196}$ _____ or _____

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Apply Skills

Applying the Pythagorean theorem

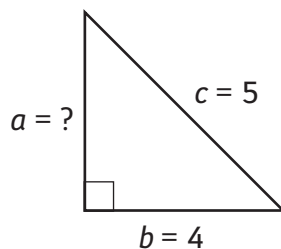
Activity 1

Use the Pythagorean theorem to find the missing lengths of the sides of right triangles. You may need to find the length of side a , b , or c . If your answer is not a perfect square, leave the squared root as your answer.

1. What is the length of side a ? _____

Show your work here.

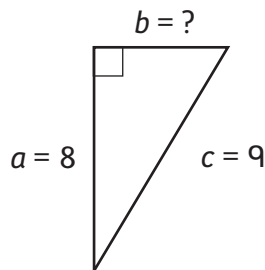
$$a^2 + b^2 = c^2$$



2. What is the length of side b ? _____

Show your work here.

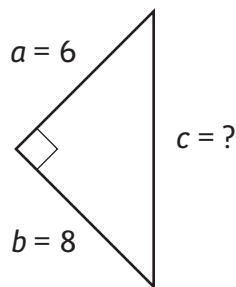
$$a^2 + b^2 = c^2$$



3. What is the length of side c ? _____

Show your work here.

$$a^2 + b^2 = c^2$$

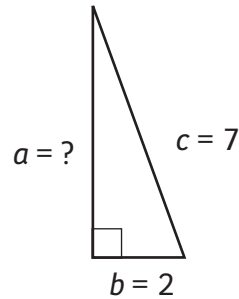


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4. What is the length of side a ? _____

Show your work here.

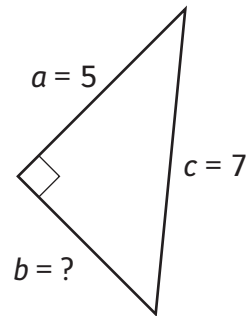
$$a^2 + b^2 = c^2$$



5. What is the length of side b ? _____

Show your work here.

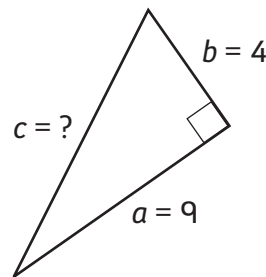
$$a^2 + b^2 = c^2$$



6. What is the length of side c ? _____

Show your work here.

$$a^2 + b^2 = c^2$$

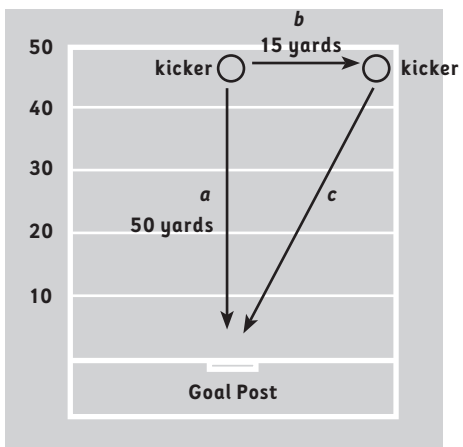


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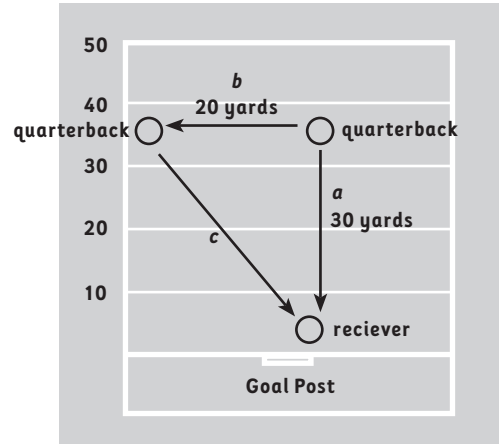
Activity 2

Use what you know about the Pythagorean theorem to solve the problems. Round decimal numbers to the nearest tenth. Think about why the distance is important for each sport.

- In football, teams can score points by kicking a field goal. When a player kicks a field goal, it is a lot easier (and shorter) if he is straight in front of the goal post. How far is it if he kicks the field goal from near the sidelines?

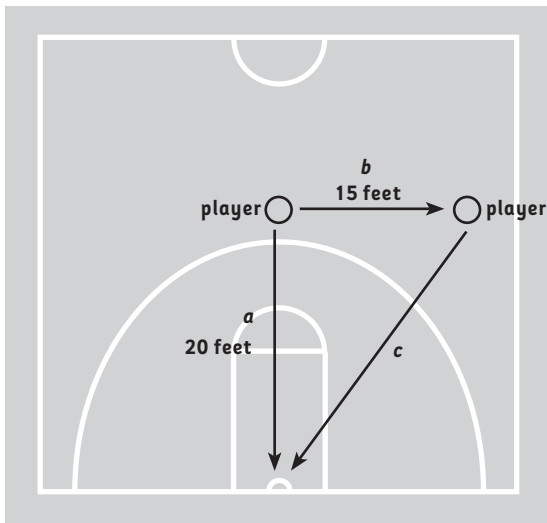


- A quarterback doesn't have to throw the ball as far from the middle of the field than from the sideline. A longer throw means there is more a chance the ball will be intercepted by the other team. How far does the quarterback throw the ball from the sidelines?

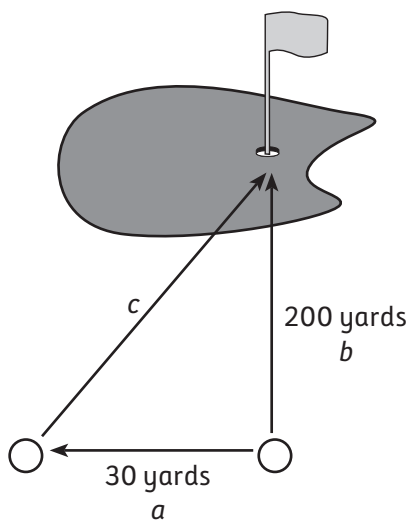


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3. A basketball player shoots a three-point shot straight at the basket. This is a distance of about 20 feet. If she moves 15 feet to the right, it is a much longer shot. How far is the longer shot?



4. A golfer does not have to hit the ball as far as she is in front of the pin on the green. If she is off to the side, the shot is farther. How far is it to hit the shot from the side?



mBook Reinforce Understanding
 Use the **mBook Study Guide** to review lesson concepts.