Math Practice - Grade 8

M10 Pythagorean theorem - Find the diagonal of a box

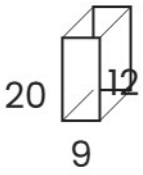
M10 8.G.B.6, 8.G.B.7, 8.G.B.8

Name: _____ Date: _____

Find the diagonal of the box. Write the answer in the box.

Example: A box is 9 by 12 by 20. What is the length of the diagonal of the box?

How: Use the theorem twice: first find the diagonal of the base, then use that diagonal and the height as the legs of a second right triangle.



Diagonal 25

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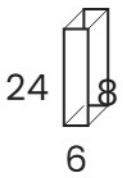
1 **A box is 6 by 8 by 24. What is the length of the diagonal of the box?**



Diagonal ____

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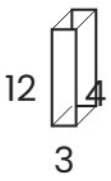
2 **A box is 3 by 4 by 12. What is the length of the diagonal of the box?**



Diagonal ____

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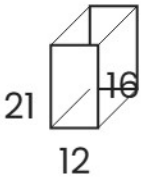
3 **A box is 12 by 16 by 21. What is the length of the diagonal of the box?**



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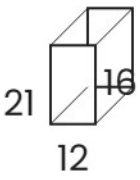

Diagonal 29

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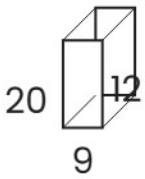
1 **A box is 9 by 12 by 20. What is the length of the diagonal of the box?**



Diagonal

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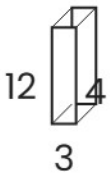

Diagonal

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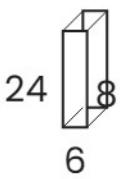
3 **A box is 6 by 8 by 24. What is the length of the diagonal of the box?**



Diagonal

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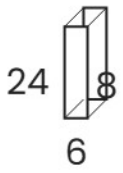

Diagonal 26

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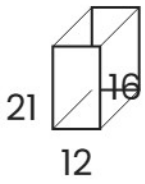
1 **A box is 12 by 16 by 21. What is the length of the diagonal of the box?**



Diagonal ____

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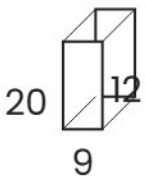

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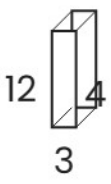

Diagonal ____