Using Pythagoras' theorem to find a shorter side

| Question |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Pythagoras' theorem | $10^{2}=6^{2}+x^{2}$ | $13^{2}=8^{2}+x^{2}$ | $8^{2}=5^{2}+x^{2}$ | $13^{2}=9^{2}+x^{2}$ | $7^{2}=2.5^{2}+x^{2}$ | $9.2^{2}=7^{2}+x^{2}$ |
| Calculate | $100=36+x^{2}$ | $169=64+x^{2}$ | $64=25+x^{2}$ | $169=81+x^{2}$ | $49=6.25+x^{2}$ | $84.64=49+x^{2}$ |
| Re-arrange | $x^{2}=100-36$ | $x^{2}=169-64$ | $x^{2}=64-25$ | $x^{2}=169-81$ | $x^{2}=49-6.25$ | $x^{2}=84.64-49$ |
| Sum | $x^{2}=64$ | $x^{2}=105$ | $x^{2}=39$ | $x^{2}=88$ | $x^{2}=42.75$ | $x^{2}=35.64$ |
| Square root | $x=\sqrt{64}$ | $x=\sqrt{105}$ | $x=\sqrt{39}$ | $x=\sqrt{88}$ | $x=\sqrt{42.75}$ | $x=\sqrt{35.64}$ |
| Solve | $x=8$ | $x=10.2$ | $x=6.2$ | $x=9.4$ | $x=6.5$ | $x=6.0$ |

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