Name: _____   Date: _____

Start Square and You'll Finish Square

These pages provide extra practice for the Skills Practice on pages 241–242.

When installing floor tile, it is a good idea to start in the centre of the room and move outward toward the walls. It is important that your tiles flow perfectly horizontally and vertically from the centre. Below is a diagram of an empty room.

1. Measure the length of each of the 2 longer walls and mark the midpoint of each wall. Draw a light line between these 2 points.

2. Repeat step 1 using the 2 shorter walls.

3. The intersection of these 2 lines is the centre of the room. Use the steps below to check if the 2 lines meet at exactly 90°.

   a) Carefully measure 3 cm from the centre along the vertical line. Mark this location on the line.

   b) Measure 4 cm from the centre along the horizontal line. Mark this location on the line.

   c) Measure the distance between these 2 marks. _____

4. Is your measurement in #3c) exactly 5 cm? If so, then you did #1 and #2 correctly so the lines meet at 90°. If the distance is not exactly 5 cm, your lines are not "square," meaning that they do not meet at exactly 90°. Redo steps 1 to 3.

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5. Name two other situations where starting square is important.

_____

_____

6. Check if the corners of your desk are square.

a) Measure _____ cm from one corner along one side of your desk. Mark the location with masking tape.

b) Measure _____ cm from the same corner along the other side of your desk. Mark the location.

c) If the corner is square and you have measured carefully, what distance should there be between the 2 marks? _____

d) Check it.

e) If you don't get the measurement you expect, redo parts a), b), and c). Is the corner square? YES   NO

Explain how you know.

_____

_____