



# Wooden deck building Explained step by step





## Wooden deck building Explained step by step

Wooden boards as a floor covering for patios and outdoor areas are now a popular trend.

Instead of having cold tiles and grey concrete slabs, a superbly designed and stylish wooden deck together with wood's warm colouring will invite you outside to enjoy the first rays of the sun in early spring.

Care should be taken when planning the project and only top-quality components should be used.

This will not only ensure a professional, workmanlike and visually spotless result, but also the greatest possible pleasure you derive from this oasis of tranquillity and relaxation. It is for this reason that wolcraft has developed a completely new system for wooden deck building, which not only satisfies all structural requirements of modern wood construction, but will also make the laying as easy as the panning of ceilings or walls. At long last, every do-it-yourselfer is now in a position to build his dream patio within a reasonable time, in an uncomplicated way and with an absolutely precise finish. The design of all system components will ensure a long service life for your new wooden deck, so that you can enjoy it for many decades to come. Not only does the system take the wood's natural properties into account, such as the swelling and shrinking of the wooden boards, it will also ensure that the wooden components are sufficiently ventilated to protect them against rotting and fungal decay in the long term. This practical guide will tell you everything you need to know about how to lay the new wolcraft wooden deck system. It has never been easier to make your dream of an elegant wooden deck come true.

wolcraft GmbH

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### Exclusion of liability:

The described methods, techniques, suggestions and recommendations have been carefully compiled and tried by the author. No guarantee can be given, however. Any liability of the author or wolcraft for personal injury, property damage or pecuniary damage is excluded.





## Overview over the laying systems

Choose the visual appearance you prefer - two systems for a perfect wooden deck:



### Concealed screwing



No visible screws will disturb the perfect, superbly designed appearance of your wooden deck. The boards will be fastened safely and perfectly concealed with the help of the wolcraft deck board joiners.



### Non-concealed screwing



wolcraft offers equipment and accessories to enthusiasts who prefer the traditional ship deck appearance that will ensure a perfect, uniform screwing pattern and structural wood protection at the same time.





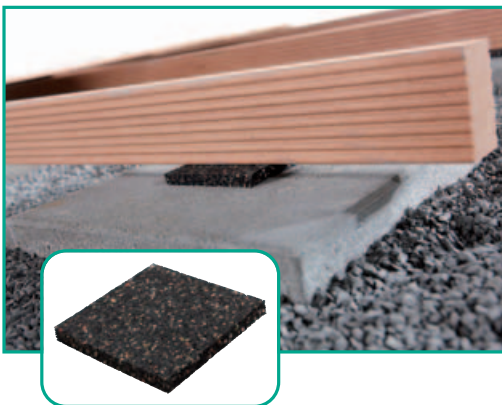


## Base and substructure



### Preparing the Base:

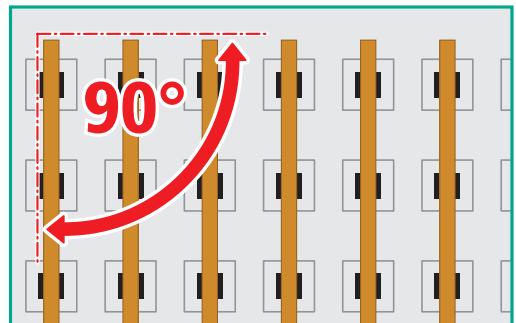
First of all, dig out the soil some 40 cm deep and fill the hole with coarse gravel up to a height of 35 cm. Level the surface and compact the base, ideally with a compactor. Fill the remaining 5 cm with fine gravel and level it with a straight edge (make sure there is a slight pitch of 1-2 cm per meter away from the building!).



The rubber support pads will act as structural wood protection and extend the patio's useful life whilst dampen the impact sound and improve the walking comfort.

### Building the substructure:

Place the floor joists at a distance of 40 - 50 cm at most onto concrete slabs (sized at least 30 x 30 cm), in order to achieve an optimal load distribution (give due regard to the instructions of the board manufacturer). Do not forget to place the wolfcraft support pads between the boards and the joists so as to protect the substructure against water logging. Not only will the pads prevent the wood from premature rotting, they will also dampen the impact sound and improve the walking comfort considerably.



In order to facilitate smooth working with the drilling templates take care that the joists are aligned parallel to each other and at an angle of 90° in the direction of laying or with the boards



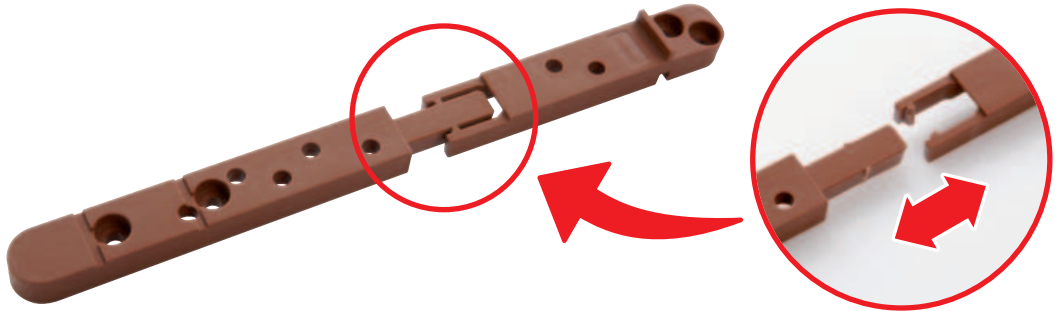


# Concealed screwing



## Joining system for the concealed screwing

The perfect, professional laying pattern without unsightly, visible screws!



Fasten the deck board joiner with four screws underneath the board. It will automatically adjust for the wood's swelling and shrinking behaviour within its range of motion and thus prevent the formation of cracks and the screws from getting torn out.



The deck board joiner should be screwed to the back of the board, so that the screws do not show on the surface. The board can then be fastened to the joist with two screws at the rear protruding end of the joiner.



The system has been designed in such a way that always two deck board joiners are arranged next to each other on the joists (for better view the second board has been removed in the picture).





## Concealed screwing



Fastening the first row of boards with concealed screws

1.



In order to lay the first row of boards, cut off the jointer at one of the rear marks or notches, depending on the width of the board (see arrow).

2.



Then shift the jointer on the floor board into such a position that a borehole just remains visible at the edge of the board. Following that, the jointer can now be fastened to the floor board with four screws.

3.



You can now put the board with the shortened jointers flush to the wall of the house, thus leaving a gap of 1 cm between the wall and the edge of the board. This is enough space to fix the floor board to the joist using one screw for the rear borehole and two screws in the front section.







## Concealed screwing

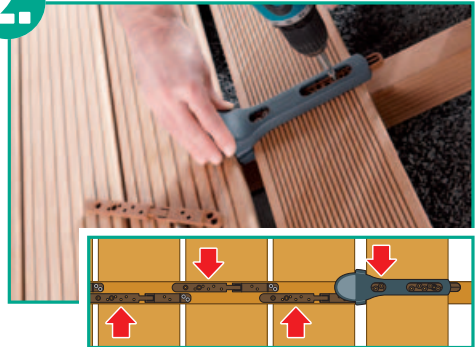
Laying boards systematically is child's play

1.



Positioning the joiners with the **drill and screw gauge** is child's play: Just put the joiner into the gauge from beneath.

2.



Put the back of the floor board upside down against the previous board and align it flush towards the front end. Place the drill gauge onto it and align it rectangularly to the floor board. The drill gauge can be placed immediately next to the previous joiner with the help of the two stops (arrows in Fig. 1), either on the left or on the right-hand side

3.



**Hint:** You may have to pre-drill boreholes in hard wood so as to prevent the wood from cracking or the screws from breaking off. Please make sure that the floor board cannot slide away while being screwed to the joiners. The joiners will now protrude from both edges of the board. Once all joiners have been fastened, the board can be turned upside down again.

4.



The joiner end projecting to the front can now be pushed under the previous floor board which will arrest the board automatically at its front edge, while it will still have to be fixed at its rear edge by two screws. The joiners will also act as spacers between floor board and supporting joist and prevent water logging, which otherwise would unnecessarily accelerate the rotting of the wood.





## Concealed screwing



5.



In order to obtain a uniform laying pattern, you should put a **spacer** between the floor boards every 80 - 100 cm, choosing a distance of either 6 or 8 mm between the floor boards. Following that, even slightly bent floor boards can be easily joined together with the wolcraft **installation clamp**...

6.



... and fixed safely with the first-class stainless steel screws supplied. The special installation clamp comes with two additional clamping jaws, so that it can be used as practical one-hand clamp at any time.

### The last deck board: fixed immaculately with concealed screws



The angular **special joiner** will also make it possible to fix the last deck board with concealed screws, thus giving your patio a clean and professional finish.

1.



Just put the last floor board (upside down again!) flush onto the previous floor board and mark the outer edge of the previous joiner with an angle on the last floor board. Align the joiner with this line and fix it with four screws.

2.



Then turn the board over again and push the joiners under the previous floor board, as before. And finally, fasten the joiner with two screws to the front edge of the joist.







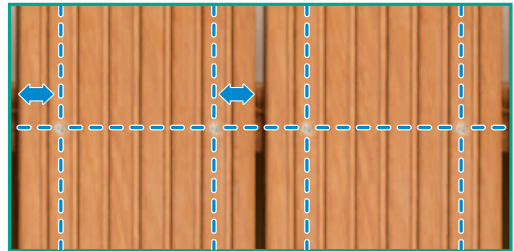
# Non-concealed screwing

## The system range for non-concealed screwed connections

wolcraft also offers you a system range of conventional, non-concealed screwed connections for deck boards which will be installed from the upper side of the board. While easily installed, the system guarantees a perfect and uniform screw pattern.

Here are the advantages:

- all screws are flush in true alignment
- all screws maintain the same distance to the edge of the board



The core of the system is the **deck board drilling guide**, which allows you to align and position the boreholes for the screws exactly and uniformly on the upper side of the deck boards. The drilling guide can be adjusted to any board width ranging between 100 and 150 mm by simply turning two adjusting knobs (1) without any further tools. This will make it possible to set the precise distance of the two boreholes to the edge of the deck board.



The „Vision“ screw starter with countersink will fit directly into the chuck of the drilling guide. The pivoted depth stop will not only prevent the drilling guide from getting damaged, it will also produce absolutely uniform countersunk boreholes for the screws. The depth of the counter boreholes can be precisely set with the hexagon key supplied. The top-quality 4 mm HSS drill used for this job will ensure excellent results and a long service life, even in extremely hard wood.



The **distance bar** is an absolute must for laying the boards in a workmanlike fashion, since it prevents water logging between joists and deck boards, which would accelerate the rotting of the entire wooden deck. The bars can be extended by positioning them together or shortening as required.



The „Vision“ magnetic bit holder is also equipped with a pivoted and adjustable depth stop, to prevent the screws from getting screwed in too far into the counter bore.





## Non-concealed screwing



The system guarantees: Simple handling, a perfect appearance of the screw pattern as well as the professional and accurate laying of the boards

1.



First of all, screw the **distance bars** to the joists and take care that the bars are alternately attached to the left and to the right joist edge.

2.



If necessary, the **distance bars** can be extended by positioning them together at their ends or they can be shortened as required. The deck boards themselves will later be screwed to the centre of the joist, so as to prevent the joist from tilting.

3.



Mark both drilling and screwing positions with two lines on the upper side of the deck board and take care that the borehole is not positioned in a groove of the board.

4.



Put the **drilling guide** onto the deck board and adjust the rear drilling bush with the help of the notch on the side, so that it hits exactly the relevant marking line.





## Non-concealed screwing

5.



Adjust the front drilling bush with the help of the setting notch on the side in the same way, so that it hits the second marking line. You can now place the deck board in its correct position onto the supporting joists.

6.



Insert a **spacer** between the deck boards every 80 cm and choose a distance of either 6 or 8 mm between them. Align the drilling guide to the marked row of screws and spot-drill the two boreholes for the time being.

7.



Having spot-drilled the boreholes, put the drilling guide aside and finish drilling the boreholes. The countersinks for the screw heads are done in the same way. The depth of the countersink can be set precisely with the **screw starter with countersink and depth stop**.

8.



Once all boreholes have been drilled into the deck board, screw the board with the **magnetic bit holder** to the centre of the supporting girders. Slightly bent deck boards can be straightened with the **installation clamp** without any problems.
















## Your shopping list



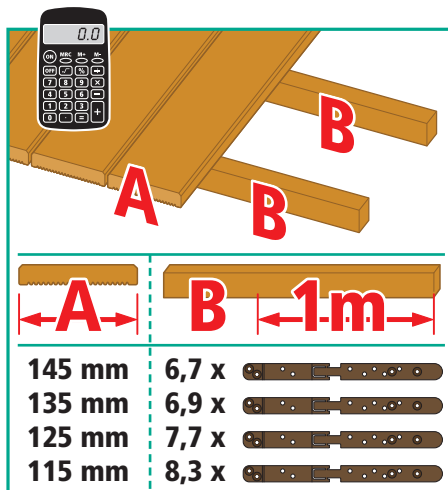
Art.- No.		Article name	Quantity required:
<b>Substructure</b>			
6987 000		20 support pads	
<b>Aligning the deck boards</b>			
6985 000		1 installation clamp for wooden deck building	
6986 000		10 spacers	
<b>Concealed screwing</b>			
6971 000		1 starter kit incl. drill and screw gauge 50 deck board joiners, incl. 300 stainless steel screws TX 20, 1 magnetic bit holder incl. stainless steel bit TX 20	
6972 000		1 expansion kit 20 deck board joiners, incl. 120 stainless steel screws TX 20	
6973 000		10 joiners for the first / last board incl. 120 stainless steel screws TX 20	
<b>Conventional screwing from above</b>			
6960 000		1 wooden deck drilling kit: drilling guide + screw starter with countersink and depth stop	
6962 000		20 distance bars, incl. 60 stainless steel screws TX 20	
6961 000		1 magnetic bit holder, incl. stainless steel bit TX 25	



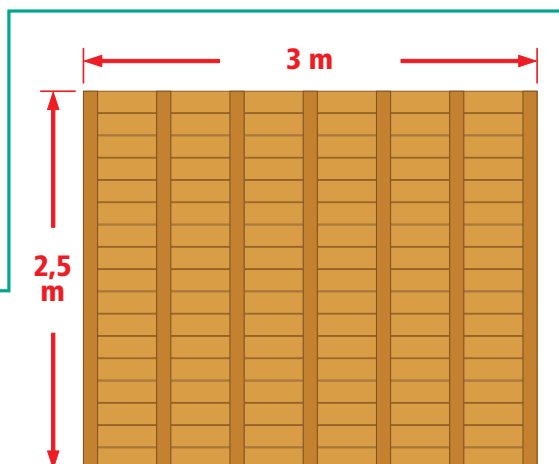


## Concealed screwing

How you find out the number of joiners required for your wooden deck



Take from the table how many joiners you need for one running meter of joists based on the board width you have selected. Then work out the total number of joiners required.



**7 girders**

### Working example:

Size of the wooden deck: 2,5 x 3 Meter

Width of the deck boards: 145 mm

Number of joists: 7 x 2.5 m = 17.5 m

Number of joiners: 6.7 per running meter (see table) x 17.5 m of girders  
= 118 joiners (rounded up)

You also require 7 special joiners (Art. No. 6973000 – see page 8) for the last board at the front edge of the patio. These 7 items can be deducted from the total number of joiners as established above:

$$118 - 7 = 111 \text{ joiners}$$

Hence, you require a total of 111 joiners

(Art. No. 6971000 / 6972000))

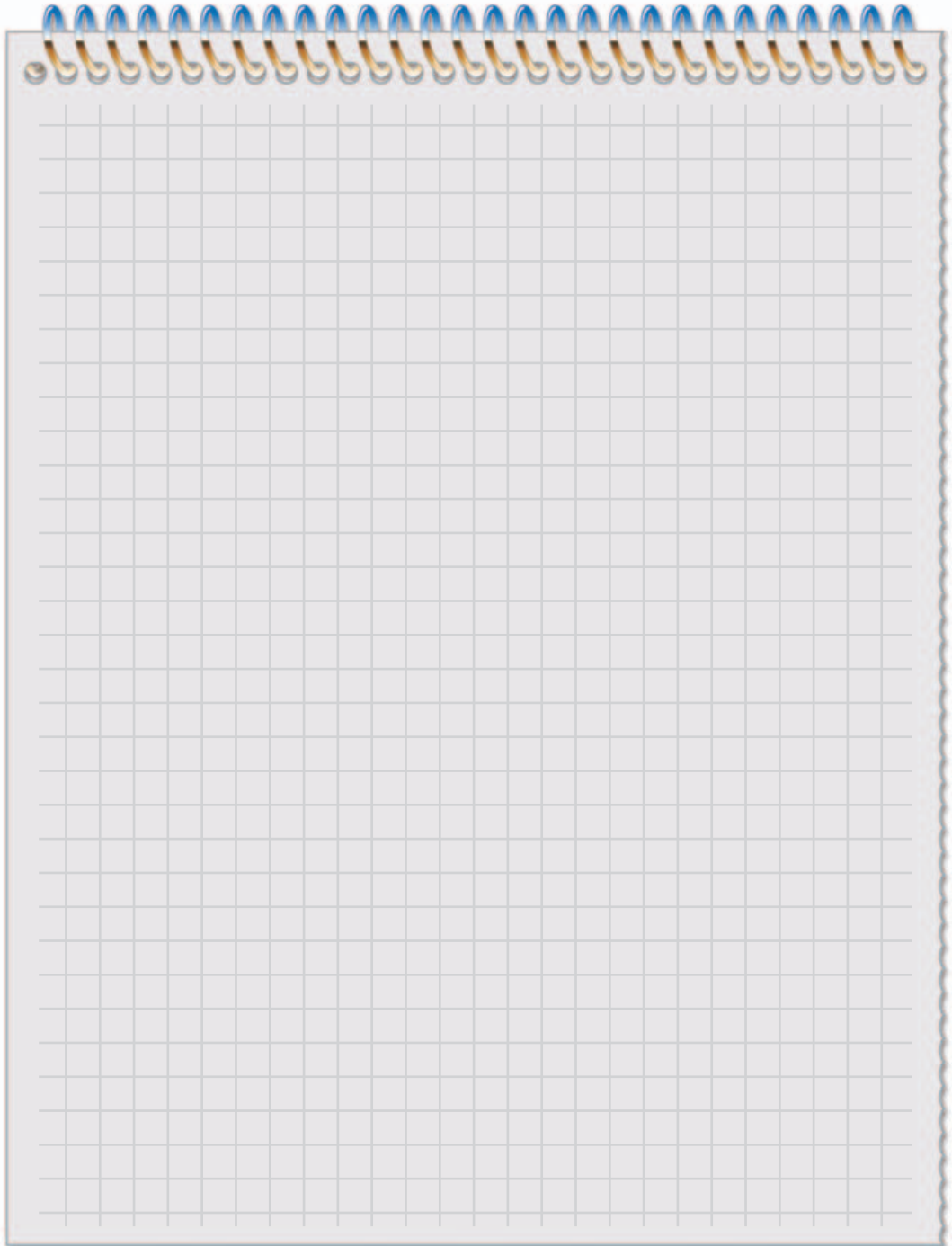
**7 joiners for the last board**

(Art. No. 6973000)



# Notes

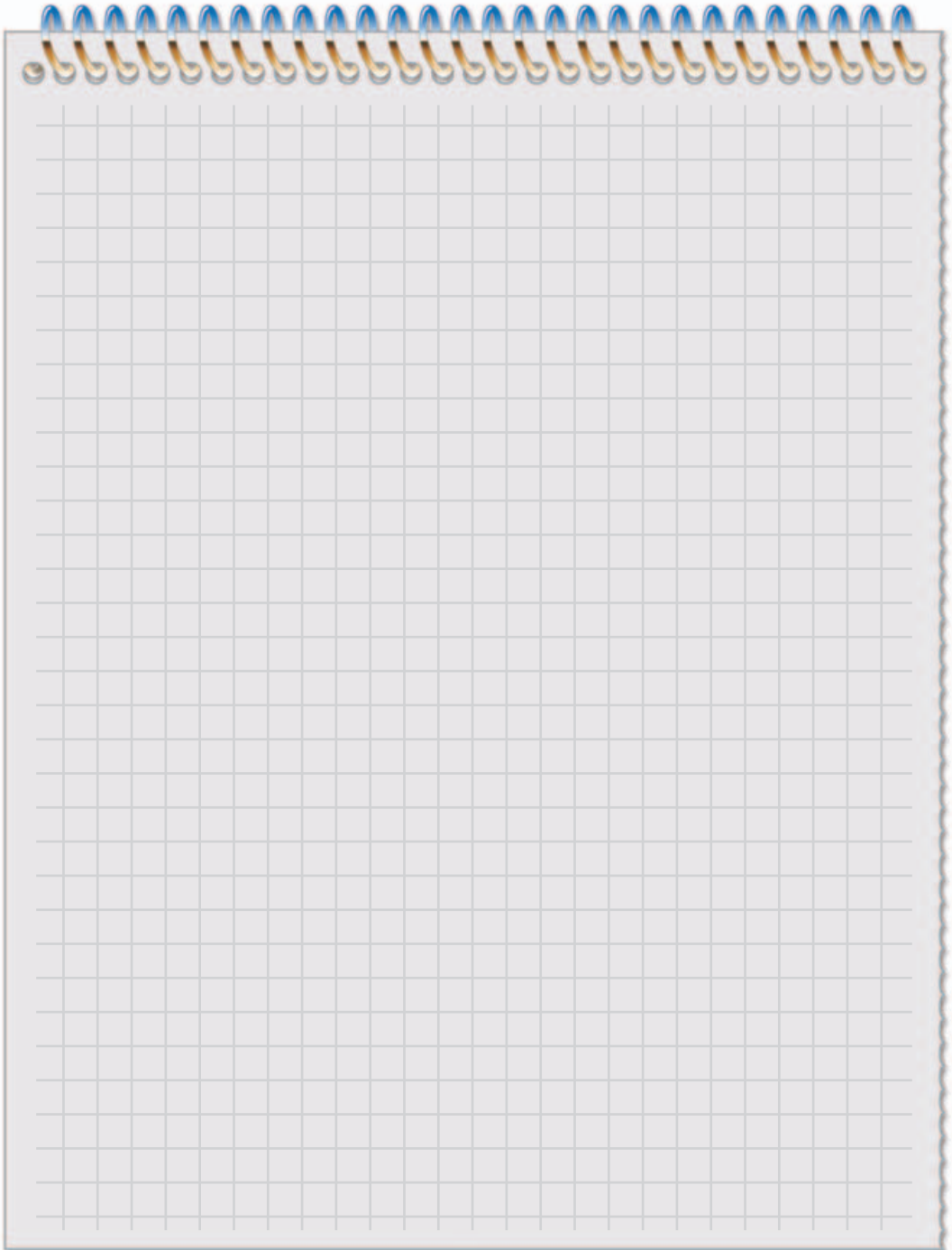
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# Notes





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