



Plumbing Lesson Five: Pipe Fittings and Parts

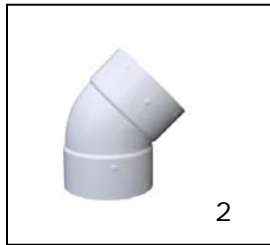
Student Handouts

Building Basics was paid for under an EL Civics grant from the U. S. Department of Education administered by the Virginia Department of Education. It was paid for under the Adult Education and Family Literacy Act of 1998; however, the opinions expressed herein do not necessarily represent the position or policy of the U. S. Department of Education, and no official endorsement by the U. S. Department of Education should be inferred. This document was designed and created by the Virginia Adult Learning Resource Center at Virginia Commonwealth University, 817 West Franklin Street, Suite 221, P.O. Box 842037, Richmond, VA 23284-2020. It may be reproduced for nonprofit, educational purposes only.

Pipe Fittings and Parts



PVC 90° elbow



PVC 1/4 bend



PVC threaded coupling



CPVC tee



PVC double tee



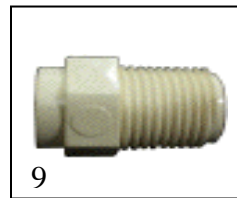
PVC cross



PVC bushing



PVC union



CPVC male adapter



PVC clean out



flange



ABS cap

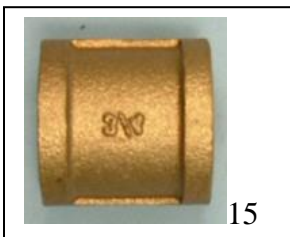


ABS p-trap



ABS wye

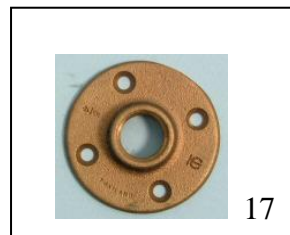
**ABS
closet**



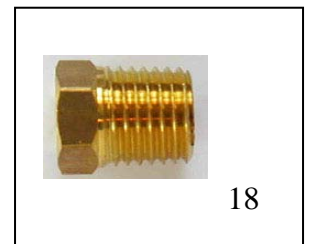
brass coupling



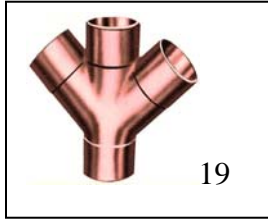
brass cross



brass floor flange



brass bushing



19

copper double elbow



20

copper wye



21

copper double wye



22

copper cross



23

copper union



24

copper female adapter



25

copper male adapter



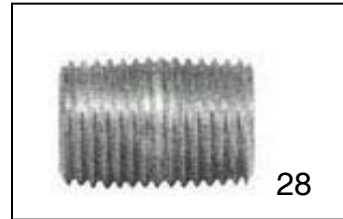
26

galvanized steel 90° elbow



27

galvanized steel 45° elbow



28

galvanized steel nipple



29

black iron reducing tee



30

black iron 90° street elbow



31

black iron plug



black iron floor flange



black iron hex bushing

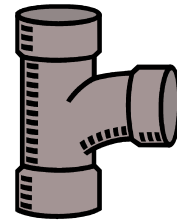


cast iron clean out



chrome p-trap

Understanding Pipe Fittings: Names



	<u>Material</u>	<u>Size or Special Shape</u>	<u>Fitting Name</u>
1.	PVC	90 degree	elbow
2.	_____	_____	_____
3.	_____	_____	_____
4.	_____	_____	_____
5.	_____	_____	_____
6.	_____	_____	_____
7.	_____	_____	_____
8.	_____	_____	_____
9.	_____	_____	_____
10.	_____	_____	_____
11.	_____	_____	_____
12.	_____	_____	_____
13.	_____	_____	_____
14.	_____	_____	_____
15.	_____	_____	_____
16.	_____	_____	_____

Material

Size or Special Shape

Fitting Name

17.	_____	_____	_____
18.	_____	_____	_____
19.	_____	_____	_____
20.	_____	_____	_____
21.	_____	_____	_____
22.	_____	_____	_____
23.	_____	_____	_____
24.	_____	_____	_____
25.	_____	_____	_____
26.	_____	_____	_____
27.	_____	_____	_____
28.	_____	_____	_____
29.	_____	_____	_____
30.	_____	_____	_____
31.	_____	_____	_____
32.	_____	_____	_____
33.	_____	_____	_____
34.	_____	_____	_____
35.	_____	_____	_____

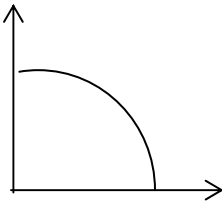
Understanding Pipe Fittings: Shapes and Sizes

Angles and Fractions

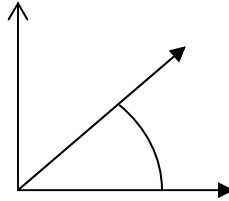
When a fitting has an angle or curve in it, its name will have a degree ($^{\circ}$) or a fraction ($\frac{1}{4}$) in it. The degree or fraction describes how big the curve is in the fitting.



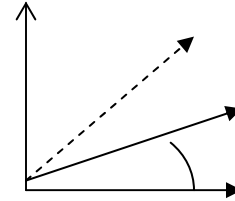
Degrees of Angles or Curves



90 degree angle
 90° angle

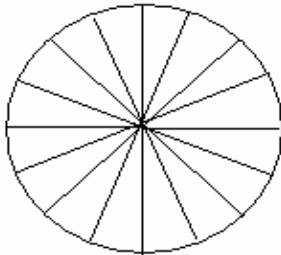


45 degree angle
 45° angle



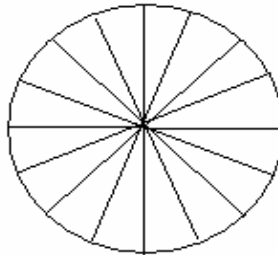
22 $\frac{1}{2}$ degree angle
22 $\frac{1}{2}^{\circ}$ angle

Fractions



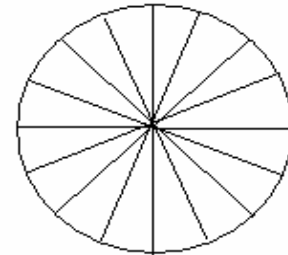
$\frac{1}{4}$ bend
one quarter bend

Color $\frac{1}{4}$ of the circle.



$\frac{1}{8}$ bend
one eighth bend

Color $\frac{1}{8}$ of the circle.



$\frac{1}{16}$ bend
one sixteenth bend

Color $\frac{1}{16}$ of the circle.

Activity #3: Can You Hand Me A . . . ?

Handout A



Conversation #1

A: Hey, _____,

B: Yeah? What do you need?

A: Can you **hand** me a 90° elbow?

B: Sure. Just a minute. (looks for fitting)
Here you go. (gives fitting to partner)

A: Thanks a lot.

B: You're welcome.

Conversation #2

A: Maria?

B: Yes. What is it?

A: Can you **get** me a floor flange?

B: Let me see. (looks for fitting and gives it
to his/her partner)
Here it is.

A: Thanks a lot.

B: No problem.

Activity #3: Can You Hand Me A . . . ?

Handout B



Conversation #1

A: Hey, _____,

B: Yeah? What do you need?

A: Can you **hand** me a 2 ½ inch tee?

B: Sure. Just a minute. (looks for fitting)
I only found one. (gives fitting to partner)

A: That's all I need.

B: Here you go. Do you need anything else?

A: No, that's it for now. Thanks.

Conversation #2

A: Maria?

B: Yes. What is it?

A: Can you **give** me a few locknuts?

B: How many?

A: Three or four will be enough.

B: Ok, let me look. (looks for fitting and
gives it to partner)
I found some. Hold out your hand.

A: I got them. Thanks a lot.

B: No problem.

Activity #3: Can You Hand Me A . . . ?

Handout C



Conversation #1

A: Hey, _____,

B: Yeah? What do you need?

A: Can you **get** me a 1/8 bend from the truck?

B: Let me see if we have any. I'll be right back. (looks for fitting in truck)

I'm back. Okay, do you want the 3-inch or the
3 1/2 inch 1/8 bend?

A: I'll take the 3-inch one.

B: Can you get it? (Can you reach it?)

A: Got it. I appreciate it.

B: Let me know if you need anything else.

A: Thanks.

B: You're welcome.

Conversation #2

A: _____? Are you there?

B: Yes. What can I do for you?

A: Can you get me a copper double wye?

B: I'll look. Is it in the van?

A: I'm not sure.

B: Ok, let me look. (looks for fitting and show something to his/her
partner)

I found a PVC double wye, but I didn't see a copper one.

A: Okay. I'll need to go back to the shop.

B: I'll go get it for you.

A: Thanks, and bring me back a coke, too.

B: You owe me.