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1.	Urine originates as	in the blood. When the fluid first enters the			
	urinary system it is called	Finally, the fluid leaving the			
	urinary system is called				
2.	The kidneys regulate the pH of	the blood by excreting or conserving ions such as			
3.	The kidneys are located on eith	ner side off the column in			
	the upper abdominal cavity,	the peritoneum.			
4.	Surrounding the kidneys is	tissue that acts as a cushion.			
5.	The covers the adipose tissue and I	is the fibrous connective tissue membrane that helps hold the kidneys in place.			
6.	The upper part of the kidney is protected by what bones?				
7.	On the medial side of each kidney is an indentation called the				
	At this site, the	takes blood from the abdominal aorta into			
	the kidney, and the inferior vena cava.	returns blood from the kidneys to the			
8.	COLOR CODE AND LABEL 1. Thoracic vertebrae (just the top one) 2. Lumbar vertebrae (the rest) 3. Sacrum 4. Urethra 5. Kidney 6. Ureter 7. Ilium 8. Urinary bladder 9. Urethra 4				

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The following diagrams depict the frontal section of a kidney and a magnified wedge of kidney tissue.



11. Use each letter once. Two answer lines will have three correct letters, and the other will have two correct letters.

Renal Cortex	A. Cavity formed by the expansion of the ureter within the kidney at the hilus
Renal Medulla	B. the outer layer of kidney tissue
	C. the inner layer of kidney tissue
Renal Pelvis	D. the calyces are funnel shaped extensions of this part
	E. urine enters from the papillae of pyramids
	F. consists of wedge-shaped pieces called pyramids
	G. contains the loop of Henle and the collecting tubes of nephrons.
	H. contain renal corpuscles and convoluted tubules



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- 12. COLOR CODE AND LABEL
  - 1. Proximal convoluted tubule
  - 2. Glomerulus
  - 3. Bowman's capsule inner podocyte
  - 4. Bowman's capsule outer layer
  - 5. Distal convoluted tubule
  - 6. Efferent arteriole

- 7. Afferent arteriole
- 8. Loop of Henle
- 9. Collecting tubule
- 10. Peritubular capillaries
- 11. Juxtaglomerular cells

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13.	Nephrons are the structural and units of the kidney.		
14.	Each nephron consists of two major parts, called the and		
	the		
15.	A renal corpuscle consists of a capillary network called the,		
	which is surrounded by, the expanded end of a		
	renal tubule.		
16.	Blood enters the glomerulus from anarteriole and		
	leaves the glomerulus by way of an arteriole. Which		
	of these arterioles has the smaller diameter?		
17.	The inner layer of Bowman's capsule is made of cells called podocytes and is very		
	permeable because it has The outer layer of		
	Bowman's capsule has no pores and is not		
18.	The fluid that enters Bowman's capsule from the glomerulus is called		
	·		
19.	Number the parts of the renal tubule in the order that the renal filtrate flows through them.		
	distal convoluted tubule		
	loop of Henle		
	collecting tubule		
	proximal convoluted tubule		
20.	Collecting tubules unite to form a papillary duct that empties urine into a calyx of the		

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21.	The blood vessels that surround all of the parts of the renal tubule, called the			
	, carry blood that has come from an			
	arteriole.			
22.	The renal artery is a branch of the			
23.	The renal vein takes blood to the			
24.	Number these blood vessels of the kidney in the order that blood flows through them. Begin at the renal artery and end at the renal vein.			
	renal artery interlobar, arcuate, and interlobular arteries			
	glomeruliinterlobar, arcuate, interlobular veins			
	afferent arterioles peritubular capillaries			
	efferent arterioles renal vein			
25.	Glomerular filtration takes place in which major part of the nephron?			
26.				
	proteins out of the and into			
27.	The fluid in Bowman's capsule is now called			
28.	The components of blood that remain in the blood are			
	and because they are too to be			
	forced out of the glomerulus			
29.	Are useful materials such as nutrients and minerals present in renal filtrate?			
	Are waste products present in renal filtrate?			
	Therefore, glomerular filtration is selective in terms of (select one)			
	usefulness size			

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30.	Renal filtrate, therefore, is very similar to the from which it			
	is made, except that there is little protein and no cells in the			
	filtrate.			
31.	In the process of tubular reabsorption, useful materials are transported from the filtrate			
	in theto the blood in the			
32.	How much of the renal filtrate is reabsorbed back into the blood?%			
33.	In the process of tubular secretion, substances are transported form the blood to the			
	in the renal tubules.			
34.	Waste products that may be secreted into the filtrate are			
	and, as well as the metabolic products of			
	medications.			
35.	To help maintain the normal pH of the blood, ions may also be			
	secreted into the renal filtrate.			
36. Antidiuretic Hormone (ADH) directly increases the reabsorption of				
	by the distal convoluted tubules and collecting tubules.			
37.	This reabsorption produces a urine that is more (dilute or concentrated) than body fluids.			
38.	When ADH secretion decreases, (more or less) water is			
	reabsorbed and urine will be more (dilute or concentrated)			
39.	The hormone ANP increases excretion of ions and decreases the			
	reabsorption of ions. This will (decrease,			
	increase) blood volume and(decrease, increase) blood pressure.			

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40. Number the following in the or	der in which filtrate/urine p	asses through them.
<u>    1     g</u> lomerulus   _	urethra	distal convoluted tubule
loop of Henle	calyx	Bowman's capsule
ureter	renal pelvis	urinary bladder
collecting tubule	proximal convolu	uted tubule
41. Two ureters are located	the	peritoneum of the
abdominal cavities.		
42. Each ureter extends from the _		of the kidney to the
	_side of the	
43. The urinary bladder is located b	pehind the	bones.
44. The functions of the urinary bla	adder are to serve as a	
for accumulating urine and to _		_ in order to eliminate urine.
45. When the bladder is empty, the	e mucosa has folds called	·
The epithelium of the bladder is		epithelium.
Both of these permit the	of the blad	der without tearing the lining
46. The triangular area on the floor	r of the bladder that has no	rugae is called the
		·
37. The boundaries of this area are	formed by the openings of	the two
a	nd the	·
The urethra carries urine from the		to the

## Word Bank

The words that go into the blanks are all found on this page.

Not every word on this page fits a blank. Some are extra words. Some words are used several times. Sometimes, more than one answer might fit a blank or a different correct answer is not found on this list. That will be counted as correct if it makes the sentence true.

99%	Reservoir	Afferent
Abdominal aorta	Rugae	Efferent
Adipose tissue	Ribs	
Ammonia and creatinine	Sodium	Large
Behind	Spinal	Small
Bicarbonate ions	Spinal cord	
Blood	Stretching	Yes
Blood cells	Transitional	No
Bowman's capsule	Trigone	
Capillaries	Ureters	Decrease
Contract	Urethra	Increase
Expansion	Urinary Bladder	
Filtrate	Urine	
Fluid	Vasa Recta	Exterior
Functional		Interior
Glomerulus		
Hilus		Concentrated
Hydrogen ions		Dilute
In front of		
Inferior vena cava		More
Outside the body		
Pelvis		Less
Permeable		
Peritubular capillaries		
Plasma		
Pores		
Lower posterior		
Large proteins		
Pubic		
Renal artery		
Renal corpuscle		
Renal cortex		
Renal fascia		
Renal medulla		
Renal pelvis		
Renal tubule		
Renal vein		

Key for coloring pages



