



Health Assistant - B

Flexible Instruction Day

Assignment #5

Learning Standard	Health/Medical Assisting Services, Other CIP 51.0899
Task # & Description	#828 Identify basic medical coding, billing, filing, and appointment scheduling procedures in a physical and virtual environment
	#212 Apply standards of confidentiality as required by HIPAA.

CONTACT INFORMATION/ASSISTANCE

Instructor Name & E-mail:

Tami Bruni RN, Health Assistant Instructor: brunit@butlertec.us

We will be available by email and the Remind app from 7:40-12, and 12:30-3:10 to answer your questions. Please reach out if you are having difficulty completing your assignments.

INSTRUCTIONS

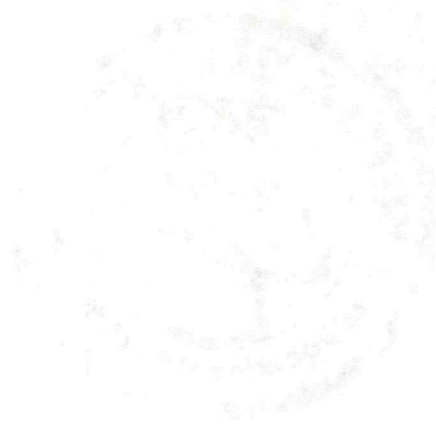
✓ All work is due on the day we return to school. This is counted towards your attendance and as a classroom assignment.

1. Complete reading Chapter 11: Office Equipment and Supplies
2. Complete Chap 11 worksheet

Name: _____

Session: _____

_____/ 50 points



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11

Office Equipment and Supplies

Case Study: Ryan

One of Ryan's coworkers misses several days of work because he has the flu. This reminds Ryan to call Hartman Physicians' Group to schedule a flu vaccination. Ryan's flu vaccination appointment will be used to illustrate key points in this chapter.

1. Describe computer hardware and associated equipment

Each medical facility uses computers differently. Some MAs may only use computers for administrative tasks such as scheduling patients or submitting insurance claims. Others may use computers throughout the day for both clinical and administrative purposes.

The term *software* refers to the applications, or programs, a computer runs. Databases, which store, sort, and retrieve information, are one type of software. EHR systems are databases. Word processors are used to create and edit written documents. Spreadsheets can sort numbers and do mathematical calculations. These are other common types of software. *Hardware* is a term that relates to the computers themselves and the equipment used along with computers.

Several different types of computer hardware are used in medical offices:

Desktop computers. These machines consist of the computer's working parts, a protective housing, a keyboard and mouse, and a monitor

(Fig. 11-1). The housing is often a tall rectangular "tower." Desktop computers may have accessories such as speakers, a camera, or a microphone. They are sometimes mounted on carts that can be moved from room to room and used to track patient care. This is more common in inpatient settings.



Fig. 11-1. Most providers' offices have at least one desktop computer in the reception area.

Laptop or notebook computers. These computers are self-contained units with a screen, keyboard, input device, and the computer itself. A trackpad, or touch-sensitive pad that controls a cursor or arrow, is a common input device. Laptops and notebooks come in many sizes and fold to open and close. Smaller notebook computers may be useful for clinical applications in outpatient settings. They can be moved easily from room to room.

Tablet computers. Tablet computers are even more compact than laptops and notebooks.

Tablets have touch-sensitive screens that allow direct input using a finger or stylus. Their portability makes them easy to use when documenting patient care (Fig. 11-2). Tablets may also be used by patients during the sign-in process. Some offices ask patients to complete and sign paperless forms on a tablet. The forms can then be loaded directly into the patient's EHR.



Fig. 11-2. In some offices MAs use tablet computers to record patient information.

Smartphones. Smartphones are so common that they are often not thought of as computers. However, they are capable of performing many computing tasks. Depending on facility policy, phones may be used for some things such as looking up reference information about medications.

Telehealth visits, or healthcare services provided remotely, are a growing area of medicine. Computers, tablets, or smartphones may also be used for these visits. Devices used for telehealth must have internet access, a microphone, and a web camera, or *webcam*, for video conferences. The webcam allows the provider to see the patient. Some practices may have mobile systems that are used solely for telehealth. Headsets may be used for better sound or to provide more privacy.

Equipment related to a computer system may include storage devices such as external hard drives or small portable memory devices (e.g., flash drives). External hard drives are used to

create backup copies of the data on individual computers. Many offices have a cloud-based, or completely virtual, system for backing up their data. These systems have security features to make sure unauthorized users cannot access protected health information.

Flash drives are often used to make information exchange easier. Documents or images can be saved to a flash drive and given to the person who has requested the information. Files may also be given to patients in the form of a CD-ROM. X-rays and other imaging studies are sometimes provided in this format. Confidentiality policies must always be followed carefully when saving private information to any external device (Fig. 11-3).

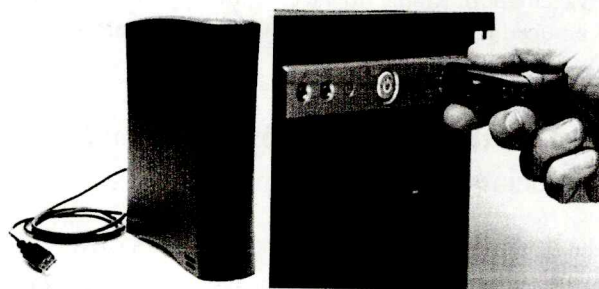


Fig. 11-3. External hard drives and other devices are useful for backing up or sharing information, but must be used with care to protect privacy.

Printers and scanners may be connected directly to a single computer or may be part of an office network. A scanner is a machine that converts a paper document into a digital image. Networks are formed when devices share access to the same hardware, data, and/or services. Even small medical offices usually have a network. Some networks may only connect computers to shared devices. Some may form a more complex *intranet*. This is an internal information-sharing system that can only be used by computers on the office network. It lets patient files and other material be shared inside the office with greater security.

Networks are created using special hardware and cables. A modem receives internet signals. A router sends the signals to different devices.

Switches split one signal into many. This type of equipment is often maintained by an employee trained in information technology (IT) or by an outside IT company.

Computers and other electronics can be damaged by unexpected changes in electrical supply. They should be protected by special equipment (Fig. 11-4). Sensitive electronics should not be plugged directly into the wall. They should be plugged into a surge protector. This device detects changes in the electrical supply and protects equipment from potential damage. An uninterruptible power supply (UPS) is also important. It contains a large, rechargeable battery and provides backup power in case of a power failure. Offices may also have a generator to make sure that power outages do not cause problems with patient care or loss of data.

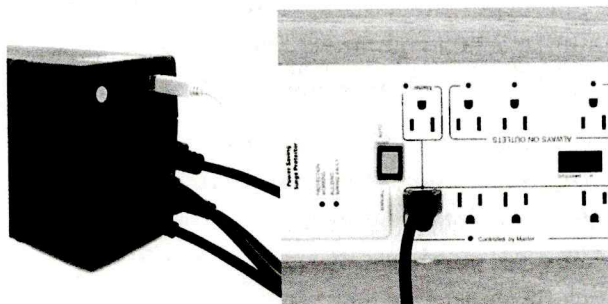


Fig. 11-4. Surge protectors and uninterruptible power supply devices protect equipment and data.

In some offices an MA may help purchase computers and related equipment. This may include researching equipment and/or computer system vendors and creating reports or making recommendations. Equipment costs and warranties should also be considered. MAs should ask questions and seek help as needed.

Case Study: Ryan

Early in the morning of Ryan's vaccine appointment there is a large storm. The power is out at Hartman Physicians' Group when Stephanie arrives to open the office. What equipment may be affected? What equipment may help Stephanie open the office and begin to prepare for the day's appointments?

2. Discuss other common office equipment

Although electronic information has started to replace paper records, most offices still deal with paper files, letters, invoices, and other documents. This means photocopiers and facsimile, or fax, machines are needed. Photocopiers, usually just called *copiers*, duplicate the writing or images on a sheet of paper. Fax machines send the contents of a document across phone lines. The document is reproduced on the receiving end. This is an outdated way of transferring information, but it is still widely used in health-care settings. Some offices have multifunction machines that can scan, print, copy, and fax documents (Fig. 11-5).

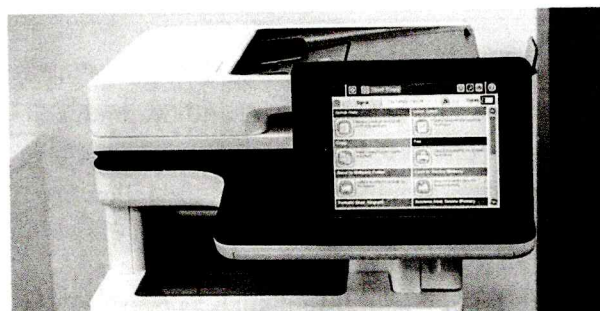


Fig. 11-5. Multifunction machines can be an efficient way to manage paper documents in a medical office.

Calculators or adding machines may be used for bookkeeping functions such as preparing bank deposits. Paper shredders are used to destroy documents that include protected health information. A shredder used in a medical setting must be HIPAA-compliant. This type of shredder usually cuts documents in more than one direction. It creates pieces so small that the document is impossible to read or put back together. Many large practices use an outside company for paper shredding.

Offices usually have telephone systems that allow calls to be transferred easily from one receiver to another. Telephone systems may also include automated answering programs that offer callers options to connect to reception, leave a message for a provider, or request medication refills. MAs will be trained to use the

telephone system in their facility, including answering calls, placing callers on hold, and transferring calls (Fig. 11-6). They may also set up the answering system, record outgoing messages, and turn the answering system on and off.



Fig. 11-6. MAs will be trained to use the office telephone system.

All medical offices also have safety and security equipment. Fire extinguishers and eyewash stations were discussed in Chapter 6. Other safety and security equipment includes the following:

- Smoke and fire alarms
- Firefighting equipment such as overhead sprinklers
- Alarm systems, which may include security cameras and/or motion detectors

Equipment for clinical tasks—such as EKG machines, centrifuges, and autoclaves—is discussed in later chapters.

Opening and Closing the Office

Each facility has different procedures for opening and closing. MAs are often assigned these tasks. Common opening tasks include the following:

- Unlocking the office
- Turning off an alarm system
- Turning on lights, computers, and other equipment
- Checking for telephone, email, fax, and/or patient portal messages
- Making coffee or setting out other beverages
- Checking that the waiting area and exam rooms are tidy and well stocked (this may also be done at closing time)

Common closing tasks include the following:

- Turning off lights, computers, and equipment
- Locking filing cabinets and areas where medication or money is stored
- Turning on a telephone answering system
- Turning on an alarm system
- Locking up the office

3. Understand equipment maintenance

Most office equipment requires some maintenance to function well. Copiers, printers, and fax machines need to have toner or ink replaced. Proper care and cleaning can improve quality and extend the life of machines.

Some regular maintenance may be performed by office staff. Some may be performed by outside vendors. This depends, in part, on whether the equipment is leased or purchased. When equipment is leased, the vendor usually maintains it. When equipment is purchased, service agreements may be available for a monthly fee.

Purchased equipment often has a warranty. This is a promise from the manufacturer to fix any problems that occur within a certain period of time after purchase. Warranties sometimes also include a period of free routine maintenance.

The most important thing for an MA to know is how service is provided for each type of equipment and whom to contact if there is a problem.

In addition to maintenance and servicing, equipment must be used properly to prevent problems. MAs should always treat equipment with care.

Guidelines: Routine Care for Office Equipment

- G** Keep all office equipment free of dust, especially surfaces with vents. Dust inside a machine can cause damage (Fig. 11-7).
- G** Do not place food or liquids on or near office equipment. Spills can cause permanent damage. Moisture from condensation on cups can also be harmful.

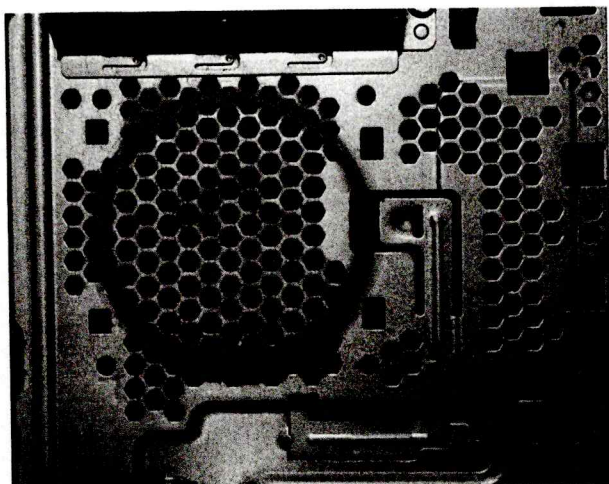


Fig. 11-7. When dust gathers on or inside office equipment, it can prevent proper cooling and affect function.

- G Follow manufacturer instructions for shutting equipment down at the end of the day. Some equipment needs to be in a “sleep,” or low-power, mode. Other equipment needs to be shut down completely. Never shut equipment down by unplugging it or turning off its power supply.
- G If equipment is plugged into a surge protector or UPS, do not unplug it unless directed to do so.
- G Perform computer backups as scheduled/ordered.
- G Make sure that antivirus programs are turned on and working properly. Computer viruses do not damage the physical parts of a computer system, but they can cause serious damage to a computer's software. Viruses can make a computer unable to function.

Office equipment should come with a manual that includes information on safety, operation, setup, cleaning, troubleshooting, and maintenance. Many companies offer free downloads of their manuals online. Most offices use maintenance log sheets to record information for each piece of equipment. When equipment is not working properly, MAs may need to perform basic troubleshooting, or take steps to discover the cause of the problem.

Guidelines: Basic Troubleshooting

- G Check to be sure that the machine is plugged in and turned on. If the machine is plugged into a surge protector or UPS, make sure that the surge protector/UPS is plugged in and turned on.
- G Restart the machine according to manufacturer instructions.
- G Check the machine's troubleshooting chart (in the manual or online). Most manuals list steps to follow in the event of a problem.
- G If the troubleshooting steps do not fix the problem, call for service according to facility policy.

4. Discuss office and medical supplies inventory

The word *equipment* refers to permanent items such as photocopiers, computers, and telephones. The word *supplies* refers to items that are used up and must be replaced regularly. Supplies are also known as *consumables* because they are used up, or consumed. A medical office requires supplies for administrative and clinical tasks. It also requires supplies for general use, such as toilet paper and coffee or other beverages (if these are provided for staff or patients).

Both equipment and supplies must be inventoried. An **inventory** is a record of the items in an office. Equipment inventories are important for insurance and tax purposes. They provide documentation of a practice's assets, or what the practice has that is valuable. Supply inventories make it easier to reorder in a timely manner.

An office equipment inventory may be recorded in a specific software program. Equipment may be barcoded and scanned. It may be recorded in a spreadsheet or database, or on paper. Inventory usually includes this information:

- The type of equipment

- Brand name, model number, and serial number
- Date and place of purchase
- Warranty information
- Maintenance and service information and inspection logs as needed (e.g., for certain medical equipment)

Common administrative supplies include the following:

- Pens, pencils, and highlighters
- Paper, sometimes including letterhead
- Staples, paper clips, file fasteners, and tape
- Envelopes and stamps (or a postage meter)
- Toner and ink
- File folders and labels
- Various preprinted forms (e.g., sign-in sheets, privacy notifications, and consent forms)

Common clinical supplies include the following:

- Examination table paper
- Hand sanitizer
- Soap
- Supplies for cleaning and disinfecting surfaces and equipment
- Personal protective equipment such as gloves and gowns
- Gauze and bandages
- Electrodes for EKGs
- Tourniquets for use during blood draws
- Needle systems for drawing blood and giving vaccinations
- Lancets
- Blood collection tubes

General supplies include facial tissue, toilet paper, hand soap, cleaning supplies for kitchens

or break rooms, any food or beverages for employees or patients, napkins, and paper towels.

An organized system for storage makes tracking supply inventory more efficient. It allows staff to locate supplies easily and see quickly how much of any supply is left. All supplies of one kind should be stored together. Labeled shelves in a supply room help create an organized system (Fig. 11-8). When new supplies arrive, they must be added to current supplies. Supplies are rotated for storage so that the oldest supplies are used first. This is important because many supplies have expiration dates.

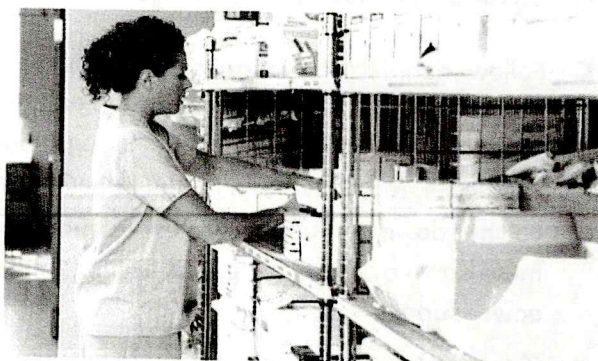


Fig. 11-8. Tidy, labeled shelves help keep an accurate inventory of medical supplies.

Whatever system an office uses to keep track of supply inventory, it must be carefully followed. This helps make sure that supplies do not run out. Running out of medical supplies can cause problems for patient care. Running out of office supplies can also cause problems. It may be frustrating for patients and distracting for employees.

MAs often order supplies as they are needed. To understand when and how much to order, the following information is needed:

- How much is generally used over the course of a day (or week, or month, in the case of less-used supplies)
- How much of a supply should be kept in storage (with items that expire, it is important to not store so much that it cannot be used before expiration)

- How long it takes to receive an order
- What may delay an order

Not all problems can be planned for, but an organized system reduces the chance of problems.

Supply Math

MAAs should know the **reorder point** for each supply. The reorder point is the time that an item should be ordered. The formula for calculating the reorder point is

$$\begin{aligned} &(\text{amount of the item that is used each day} \\ &\times \text{turnaround time from order to delivery}) \\ &+ \text{a safety stock} \end{aligned}$$

In this formula, the *safety stock* is the amount of an item that should be kept in case there is a shipping delay or the item is out of stock.

For example, Hartman Physicians' Group uses two packages of 2"x2" gauze per day. The length of time needed to receive orders is usually 10 days. The practice has chosen a one-week supply (10 packages) as the safety stock to keep on hand.

$$\begin{aligned} &[2 (\text{amount used each day}) \times 10 (\text{turnaround} \\ &\text{time, in days, to reorder})] + 10 (\text{safety stock}) \\ &20 + 10 = 30 \end{aligned}$$

The reorder point is when the practice has 30 packages of 2"x2" gauze on hand. Many practices use a manual reminder system. The reminder cue may be a sticker placed on an item. The sticker signals the need to reorder this item. In this case, the sticker would be placed on the 30th package of gauze counting from the back.

Case Study: Ryan

Ryan leaves home early to get to his vaccine appointment because he is worried about the weather. He has no trouble, though, and arrives 20 minutes early for his 9:00 a.m. appointment. Hartman Physicians' Group offers coffee and bottled water to patients in the waiting room. Consider Ryan's experience with HPG related to this visit, from the time he schedules the appointment until he leaves the office. What supplies and equipment are involved in the entire process?

Chapter Review

1. List one use for each of these types of computer in a healthcare setting: desktop computer; notebook computer; tablet.
2. What devices may protect a medical office's computers and electronic equipment from unexpected changes in the electrical supply?
3. List four common types of office equipment other than computers.
4. What substance(s) should be kept off office equipment to protect against damage?
5. List two steps an MA should take when troubleshooting office equipment.
6. What is the term for a record of items present in an office?
7. List five general supplies found in a medical office.
8. What information does an MA need in order to determine the reorder point for a particular supply?

11

Office Equipment and Supplies

1. Describe computer hardware and associated equipment

Matching

Match each item to the correct category of equipment. Letters may be used more than once.

1. ____ Modems, routers, and switches are examples.
 2. ____ May be used to allow patients to complete and sign paperless forms during check-in
 3. ____ Often not thought of as computers but can perform many computing tasks
 4. ____ Sometimes mounted on carts that can be moved from room to room and used to track patient care
 5. ____ Make it possible for devices to share access to the same hardware, data, and/or services
 6. ____ Self-contained units with a screen, keyboard, and input device
 7. ____ May include a webcam and a microphone or headset
 8. ____ Small, portable external ones require special care for confidentiality.
 9. ____ Their portability makes them easy to use when documenting patient care.
 10. ____ One part may be called a "tower."
- (A) Desktop computers
(B) Laptop or notebook computers
(C) Tablet computers
(D) Smartphones
(E) Equipment for telehealth visits
(F) Storage devices
(G) Networking hardware

Multiple Choice

11. What type of software are EHR systems?
(A) Word processing
(B) Internet browser
(C) Spreadsheet
(D) Database
12. What is the difference between software and hardware?
(A) Software is used on portable devices and hardware is used on desktop devices.
(B) Software is a program run by a computer and hardware is the computer and computer equipment.
(C) Software is the computer and computer equipment and hardware is a program run by a computer.
(D) Software is a computer that is not secured for confidentiality and hardware is a computer that is properly secured.
13. An internal file-sharing system that can only be used by computers on an office network is called
(A) The internet
(B) A database
(C) An intranet
(D) An IT hub
14. What small device may be used to provide backup power to machines and devices in case of a power failure?
(A) A surge protector
(B) An uninterruptible power supply (UPS)
(C) A signal switch
(D) A generator

2. Discuss other common office equipment

Short Answer

1. List four possible functions of a multifunction office copier.

2. Why might a medical office have a calculator or adding machine?

3. List three types of safety and security equipment common in a medical office.

4. How do documents containing PHI have to be shredded?

5. What are three common options on a medical office's telephone answering system?

Name: _____

6. List five tasks an MA may be assigned to open a medical office for the day.

7. List four tasks an MA may be assigned to close a medical office for the day.

3. Understand equipment maintenance

True or False

1. ____ MAs need to know how to service each type of equipment in the office or facility where they work.
2. ____ When equipment is leased, the vendor usually maintains it.
3. ____ Equipment plugged into a surge protector or UPS should be unplugged as part of closing the office each day.
4. ____ Computer viruses damage computer hardware.
5. ____ Keeping the office tidy is the main reason to remove dust from office machines.
6. ____ Spilling a cup of soda on office equipment can cause permanent damage.

Name: _____

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7. _____ Turning off the power strip where a desktop computer is plugged in is the best way to shut down the computer for the night.
8. _____ If an MA cannot find a paper manual for office equipment, they will probably have to call the manufacturer and order a replacement manual.

Multiple Choice

9. Where do offices commonly keep information about equipment maintenance?
(A) In the EHR database
(B) On maintenance log sheets
(C) On the user portal of each manufacturer's website
(D) On a sticky note attached to each piece of equipment
10. What is the first step in basic troubleshooting?
(A) Call the service number listed in the instruction manual.
(B) Call a local technician authorized by the manufacturer.
(C) Check to be sure that the machine is plugged in and turned on.
(D) Ask the provider to check the equipment.

4. Discuss office and medical supplies inventory

Short Answer

1. What information is usually included in an equipment inventory?

2. List ten common clinical supplies used in a medical office.

3. List ten common administrative supplies used in a medical office.

4. List five common general supplies used in a medical office.

Fill in the Blank

5. An organized system for _____ makes tracking supply _____ more efficient.

Name: _____

6. All supplies of one kind should be stored _____.
7. Supplies are rotated for storage so that the _____ supplies are used first. This is important because many supplies have _____.
8. MAs should know the _____ for each supply. This is the time that an item should be ordered.
9. A(n) _____ is the amount of an item that should be kept in case there is a shipping delay or the item is out of stock.
10. The formula for calculating the reorder point for a supply is (amount of the item that is used _____ x turnaround time from _____ to delivery) + a safety stock.

Short Answer

For each of the following situations, answer the questions to calculate the reorder point for the supply. Remember that this is the formula for finding a reorder point:

Amount used per day x days from order to delivery + safety stock = reorder point

11. Hartman Physicians' Group uses an average of 10 lavender-topped blood collection tubes each day. It is currently taking 15 business days for new shipments to arrive. The safety stock is a 3-week supply.

How many tubes are used each day? _____

How many days does it take to get a new shipment? _____

How many tubes are in the safety stock? _____

The office should reorder when _____ tubes are left.

12. An endocrinology office uses an average of 20 lancets per day. They come in boxes of 100. From order to delivery, reordering takes 1 week. Safety stock is 2 boxes of lancets. What is the reorder point for lancet boxes?

How many boxes of lancets are used each day? (This can be shown as a fraction or decimal.) _____

How many days does it take to get a new shipment? (Count business days only.) _____

How many boxes are in the safety stock? _____

The office should reorder when _____ boxes are left.

13. Exam table paper rolls come in boxes with 12 rolls. Each roll usually lasts through 20 changes. Dr. Letizia is the only provider in her office. On most days she sees 20 patients. It takes 10 business days to receive a new order of exam table paper. Safety stock for this item is 1 box. What is the reorder point?

How many boxes are used each day? (This can be shown as a fraction or decimal.) _____

How many days does it take to get a new shipment? _____

How many boxes are in the safety stock? _____

The office should reorder when _____ boxes are left. (Round to the nearest whole box.)