PFC2 Chapter 5 Section 1 Guided Reading
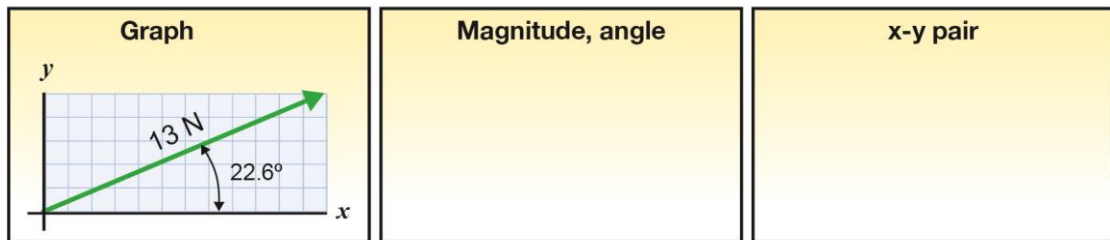
1. A _____ is a quantity that is completely described by its magnitude and measurement units.

2. Name two examples of scalar quantities.

3. A _____ is a quantity that includes both magnitude and direction.

4. Name two examples of vectors.

5. In the graphic below, fill in the second and third boxes to show three ways to describe the same force.

Graph	Magnitude, angle	x-y pair

6. A force vector has a magnitude of 17 N and a direction of 28.1°. Its *x*-component vector is 15 N. Use the Pythagorean theorem to find its *y*-component vector.

7. A free-body diagram shows all of the _____ _____ acting on an object. It does not include the forces that the object exerts on _____ _____.

8. Do the Your Turn problems on page 109. Check your solutions against the answers provided at the end of the chapter.

9. Fill in the table below. Use the chart on page 110 for reference.

Type of force	Symbol	Description of force
Gravitational force		
	F_n	
		A force applied to an object by a person or other object
Tension force		
	F_f	
		A special type of friction that acts on objects as they travel through air
Spring force		

10. A girl stands with both feet on a skateboard and coasts down a hill. Name three forces acting on the skateboard.