## Chapter 10 Warm-Up

## Section 10.1

1. A student draws the following number line for the inequality $x>-1$. Is this correct? Why or why not?
$\xrightarrow[-3-2-10 \quad 1]{\longrightarrow}$
2. Your aunt has children whose ages range between 18 and 25 years of age. Write an inequality to represent their ages.
3. Solve: $-5 x<-10$
4. Draw a number line for the solutions to: $2 x-8 \geq 15$
5. Solve: $3(2 x-1)<8(x+1)$

## Mental Math

6. Find the measure of the obtuse angle on this straight line.


## Section 10.2

1. When solving inequalities what happens when both sides of the equation are multiplied by a negative number?
2. Solve: $3(x-7)<-5 x$
3. What types of angles are $\angle \mathrm{DCB}$ and $\angle \mathrm{DAB}$ and how are they related?

4. What is the measure of obtuse $\angle$ FCG?

5. Draw an inscribed angle that has a measure of $90^{\circ}$ and that is subtended by a chord. Label the centre in your diagram.
6. All angles in the triangle add up to $180^{\circ}$. Find the measure of $\angle \mathrm{C}$.

7. In this isosceles triangle, what is the measure of $\angle F$ ?
8. What is the measure of reflex $\angle A B C$ ?
9. Identify all the line segments that are the segments that are
same length in this diagram.


## Mental Math

6. Draw a circle and within the circle draw each of these lengths: a chord, a diameter, and a radius.
7. Draw a line and label the point $A$ as the midpoint of this line.
8. Find the missing length 5 cm in this right triangle.

9. Find the height of this isosceles triangle.

10. Two lines are perpendicular when they meet at $90^{\circ}$. Look around you and name two pairs of objects that are perpendicular to one another.

## Section 10.3

1. Find the measure of $\angle x$ and $\angle y$.

2. Find the measure of $\angle x$ and $\angle y$.

3. Find the measure of $\angle x$ and $\angle y$.

4. If $C E=6 \mathrm{~cm}$ and $A B=16 \mathrm{~cm}$, what is the measure of $C D$ ?

5. Which lengths are perpendicular to each other?


## Mental Math

6. An isosceles right triangle has legs measuring 8 cm each. How long is the hypotenuse, to the nearest tenth?
7. A right triangle has a hypotenuse of 25 cm and a leg that measures 20 cm . What is the measure of the second leg?
8. Find the measure of angle $x$.

9. Find the measure of all the missing angles in the triangles.

10. Find the measure of each angle in $\triangle D E F$.

