1. Label the sides of the following triangle with respect to <P:

```
                                    Q
                                   /|
                                  / |
                                 /  |
                                /   |
                               /    |
                              /     |
                             /      |
                            /       |
                           /        |
                          /      ___|
                         /_____|_|__|
                        P           R
```
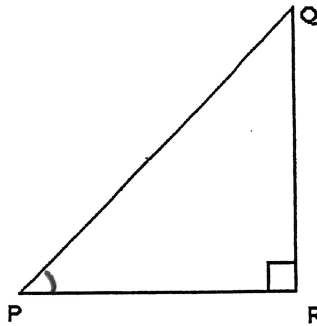
2. Consider ΔXYZ. State the following trigonometric ratios in decimal form. Round to two decimals.

```
    X      8 cm      Y
     \‾‾‾‾‾‾‾‾‾‾‾‾‾|_|
       \           |
         \         |
           \       | 9 cm
12.04 cm    \      |
              \    |
                \  |
                 \θ|
                  Z\
```

$\tan\theta$

$\tan\theta =$

$\sin\theta$

$\sin\theta =$

$\cos\theta$

$\cos\theta =$
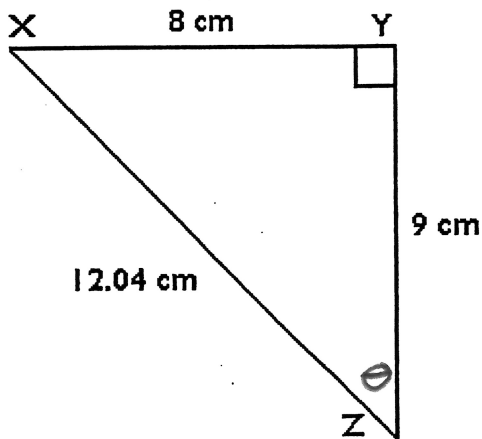
3. Evaluate the following ratios to 2 decimal places.
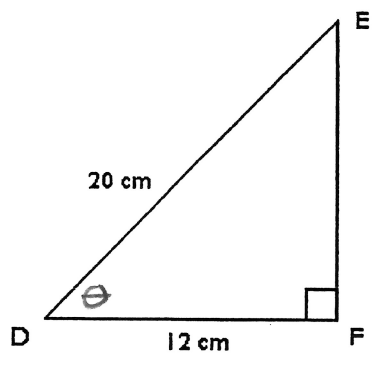
   a) $\sin 49°$

   b) $\cos 220°$

   c) $\tan 114°$

4. Evaluate the following angles to the nearest degree.

   a) $\cos^{-1}(0.76)$
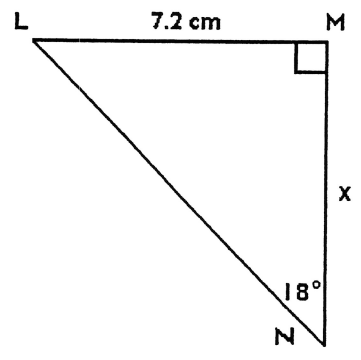
   b) $\tan^{-1}(\frac{11}{3})$

   c) $\sin^{-1}(0.2)$

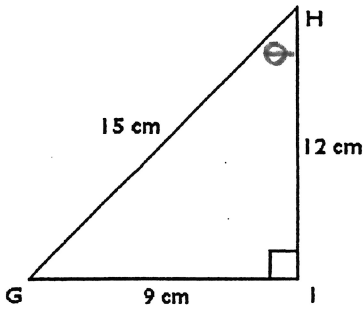5. Determine the measure of ∠D in ΔDEF. Round to the nearest degree.

E

20 cm

D

12 cm

F

6. Determine the measure of the unknown side in ΔLMN. Round to the nearest centimeter.

L   7.2 cm   M

x

18°

N

7. For the side measures given, determine if the sine ratio of <H is correct. Explain your solution.
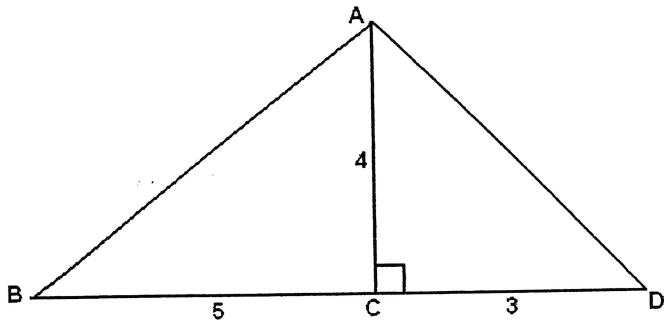

$$\sin H = \frac{15}{9}?$$

CORRECT   INCORRECT   (Circle)

Why?

8. George is flying a kite on a string 175 m long. The string makes an angle of 70° with the ground. George is holding the end of the string 1.5 m above the ground. How high is the kite? Round to 1 decimal place.

9. Use trigonometry to calculate the total measure of <BAD. Round to 1 decimal place.

```
            A
           /|\
          / | \
         /  4  \
        /   |   \
       /    |    \
      /     |__   \
     B------C------D
        5      3
```

10. A lifeguard is sitting at the top of her post. Suddenly she hears a child calling for help in the water. Her chair is 3 meters high and the angle of depression is 53°. If her upper body is 1 meter in length, how far is the swimmer from the base of the chair? Round to the nearest meter.