Math 5b, homework 16.

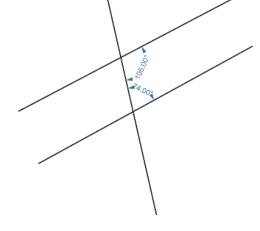


- 1. Draw a triangle with sides 3 cm, 5 cm and the angle between them 50°.
- 2. Draw a triangle with angles 30° and 50° and the side between them 7 cm.

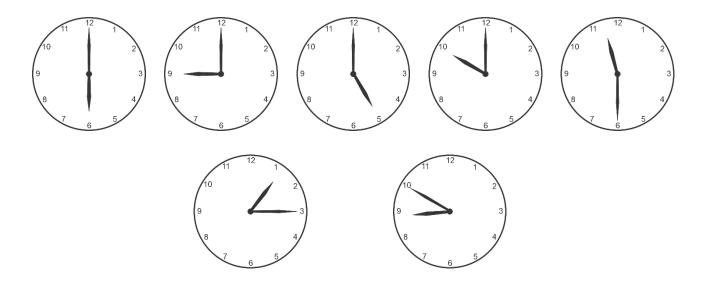
Is information about two sides and the angle between them, or about two angles and the side between them, enough to draw a triangle? Try drawing a triangle with angles 55° , 50° , and 75° . Then, draw another triangle with the same angles: 55° , 50° , and 75° . (Two identical triangles with the same sides and the

same angles are not considered different triangles.)

3. Are these two lines parallel?



4. What is the angle between the small and big hands of a watch at the time:



5. Divide the number 15,000 into two parts so that 5% of the first part and 7% of the second part together equal 6.5% of the whole number.

6. It is known that the number *a* is 5 times larger than the number *b*.

Find the numbers a and b, given that:

a.
$$GCD(a,b) = 3$$
;

b.
$$GCD(a, b) = 5;$$

c.
$$GCD(a, b) = 15;$$

d.
$$GCD(a, b) = 20$$
.

7. It is known that the numbers a and b are negative, with a > b, and the numbers m and nare positive, with m < n.

Compare the following:

a.
$$\mathbf{a} + \mathbf{n}$$
 and $\mathbf{b} + \mathbf{n}$;

b.
$$a + n$$
 and $b + m$;

c.
$$\boldsymbol{a} - \boldsymbol{m}$$
 and $\boldsymbol{b} - \boldsymbol{n}$.

8. Evaluate (hint |5| is absolute value of 5):

a.
$$|5.29| + |-4.71|$$
;

$$b. |12.91| + |-2.601|;$$

a.
$$|5.29| + |-4.71|$$
; b. $|12.91| + |-2.601|$; c. $|-3.3| \cdot \left| 1\frac{9}{11} \right|$;

9. Evaluate;

a.
$$5.679 \cdot 23.72 + 11.001 \cdot 23.72 + 23.72 \cdot 3.32$$
;

b.
$$3.549 \cdot 0.649 + 0.051 \cdot 3.549 + 3.549 \cdot 0.3$$

c.
$$94.62 \cdot 30.708 - 23.6 \cdot 30.708 + 30.708 \cdot 29.98$$

d.
$$194.066 \cdot 25.973 + 11.007 \cdot 194.066 - 35.98 \cdot 194.066$$