



## Identifying Triangle Angles and Lengths

Name: \_\_\_\_\_

**Determine if the statement is possible(p) or impossible(i).**

- 1) A triangle with the angles:  $52^\circ$ ,  $9^\circ$  and  $109^\circ$ .
- 2) A triangle with the angles:  $137^\circ$ ,  $34^\circ$  and  $9^\circ$ .
- 3) A triangle with the angles:  $62^\circ$ ,  $8^\circ$  and  $97^\circ$ .
- 4) A triangle with the angles:  $21^\circ$ ,  $117^\circ$  and  $42^\circ$ .
- 5) A triangle with the angles:  $61^\circ$ ,  $92^\circ$  and  $27^\circ$ .
- 6) A triangle with the angles:  $108^\circ$ ,  $20^\circ$  and  $52^\circ$ .
- 7) A triangle with the angles:  $56^\circ$ ,  $22^\circ$  and  $85^\circ$ .
- 8) A triangle with the angles:  $12^\circ$ ,  $21^\circ$  and  $139^\circ$ .
- 9) A triangle with the angles:  $90^\circ$ ,  $86^\circ$  and  $4^\circ$ .
- 10) A triangle with the angles:  $60^\circ$ ,  $81^\circ$  and  $12^\circ$ .
- 11) A triangle with the sides: 5cm, 7cm and 4cm.
- 12) A triangle with the sides: 10ft, 9ft and 8ft.
- 13) A triangle with the sides: 10ft, 6ft and 5ft.
- 14) A triangle with the sides: 2cm, 6cm and 1cm.
- 15) A triangle with the sides: 10in, 2in and 1in.
- 16) A triangle with the sides: 9in, 4in and 3in.
- 17) A triangle with the sides: 8ft, 8ft and 8ft.
- 18) A triangle with the sides: 4mm, 7mm and 3mm.
- 19) A triangle with the sides: 10cm, 10cm and 10cm.
- 20) A triangle with the sides: 1in, 1in and 5in.

**Answers**

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_
6. \_\_\_\_\_
7. \_\_\_\_\_
8. \_\_\_\_\_
9. \_\_\_\_\_
10. \_\_\_\_\_
11. \_\_\_\_\_
12. \_\_\_\_\_
13. \_\_\_\_\_
14. \_\_\_\_\_
15. \_\_\_\_\_
16. \_\_\_\_\_
17. \_\_\_\_\_
18. \_\_\_\_\_
19. \_\_\_\_\_
20. \_\_\_\_\_



# Identifying Triangle Angles and Lengths

Name: **Answer Key**

Determine if the statement is possible(p) or impossible(i).

- 1) A triangle with the angles:  $52^\circ$ ,  $9^\circ$  and  $109^\circ$ .
- 2) A triangle with the angles:  $137^\circ$ ,  $34^\circ$  and  $9^\circ$ .
- 3) A triangle with the angles:  $62^\circ$ ,  $8^\circ$  and  $97^\circ$ .
- 4) A triangle with the angles:  $21^\circ$ ,  $117^\circ$  and  $42^\circ$ .
- 5) A triangle with the angles:  $61^\circ$ ,  $92^\circ$  and  $27^\circ$ .
- 6) A triangle with the angles:  $108^\circ$ ,  $20^\circ$  and  $52^\circ$ .
- 7) A triangle with the angles:  $56^\circ$ ,  $22^\circ$  and  $85^\circ$ .
- 8) A triangle with the angles:  $12^\circ$ ,  $21^\circ$  and  $139^\circ$ .
- 9) A triangle with the angles:  $90^\circ$ ,  $86^\circ$  and  $4^\circ$ .
- 10) A triangle with the angles:  $60^\circ$ ,  $81^\circ$  and  $12^\circ$ .
- 11) A triangle with the sides: 5cm, 7cm and 4cm.
- 12) A triangle with the sides: 10ft, 9ft and 8ft.
- 13) A triangle with the sides: 10ft, 6ft and 5ft.
- 14) A triangle with the sides: 2cm, 6cm and 1cm.
- 15) A triangle with the sides: 10in, 2in and 1in.
- 16) A triangle with the sides: 9in, 4in and 3in.
- 17) A triangle with the sides: 8ft, 8ft and 8ft.
- 18) A triangle with the sides: 4mm, 7mm and 3mm.
- 19) A triangle with the sides: 10cm, 10cm and 10cm.
- 20) A triangle with the sides: 1in, 1in and 5in.

## Answers

1. **i**
2. **p**
3. **i**
4. **p**
5. **p**
6. **p**
7. **i**
8. **i**
9. **p**
10. **i**
11. **p**
12. **p**
13. **p**
14. **i**
15. **i**
16. **i**
17. **p**
18. **i**
19. **p**
20. **i**