



## Identifying Triangle Angles and Lengths

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

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

- 1) A triangle with the angles:  $88^\circ$ ,  $16^\circ$  and  $65^\circ$
- 2) A triangle with the angles:  $13^\circ$ ,  $18^\circ$  and  $127^\circ$
- 3) A triangle with the angles:  $83^\circ$ ,  $51^\circ$  and  $31^\circ$
- 4) A triangle with the angles:  $12^\circ$ ,  $5^\circ$  and  $145^\circ$
- 5) A triangle with the angles:  $26^\circ$ ,  $125^\circ$  and  $8^\circ$
- 6) A triangle with the angles:  $79^\circ$ ,  $82^\circ$  and  $4^\circ$
- 7) A triangle with the angles:  $22^\circ$ ,  $151^\circ$  and  $7^\circ$
- 8) A triangle with the angles:  $96^\circ$ ,  $34^\circ$  and  $25^\circ$
- 9) A triangle with the angles:  $25^\circ$ ,  $145^\circ$  and  $10^\circ$
- 10) A triangle with the angles:  $129^\circ$ ,  $4^\circ$  and  $41^\circ$
- 11) A triangle with the sides: 6mm., 7mm. and 5mm.
- 12) A triangle with the sides: 7in., 7in. and 10in.
- 13) A triangle with the sides: 10cm., 10cm. and 10cm.
- 14) A triangle with the sides: 6cm., 3cm. and 7cm.
- 15) A triangle with the sides: 6ft., 6ft. and 1ft.
- 16) A triangle with the sides: 5cm., 7cm. and 4cm.
- 17) A triangle with the sides: 8cm., 8cm. and 7cm.
- 18) A triangle with the sides: 10in., 10in. and 8in.
- 19) A triangle with the sides: 4in., 6in. and 3in.
- 20) A triangle with the sides: 4mm., 9mm. and 3mm.

**Answers**

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



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

- 1) A triangle with the angles:  $88^\circ$ ,  $16^\circ$  and  $65^\circ$
- 2) A triangle with the angles:  $13^\circ$ ,  $18^\circ$  and  $127^\circ$
- 3) A triangle with the angles:  $83^\circ$ ,  $51^\circ$  and  $31^\circ$
- 4) A triangle with the angles:  $12^\circ$ ,  $5^\circ$  and  $145^\circ$
- 5) A triangle with the angles:  $26^\circ$ ,  $125^\circ$  and  $8^\circ$
- 6) A triangle with the angles:  $79^\circ$ ,  $82^\circ$  and  $4^\circ$
- 7) A triangle with the angles:  $22^\circ$ ,  $151^\circ$  and  $7^\circ$
- 8) A triangle with the angles:  $96^\circ$ ,  $34^\circ$  and  $25^\circ$
- 9) A triangle with the angles:  $25^\circ$ ,  $145^\circ$  and  $10^\circ$
- 10) A triangle with the angles:  $129^\circ$ ,  $4^\circ$  and  $41^\circ$
- 11) A triangle with the sides: 6mm., 7mm. and 5mm.
- 12) A triangle with the sides: 7in., 7in. and 10in.
- 13) A triangle with the sides: 10cm., 10cm. and 10cm.
- 14) A triangle with the sides: 6cm., 3cm. and 7cm.
- 15) A triangle with the sides: 6ft., 6ft. and 1ft.
- 16) A triangle with the sides: 5cm., 7cm. and 4cm.
- 17) A triangle with the sides: 8cm., 8cm. and 7cm.
- 18) A triangle with the sides: 10in., 10in. and 8in.
- 19) A triangle with the sides: 4in., 6in. and 3in.
- 20) A triangle with the sides: 4mm., 9mm. and 3mm.

**Answers**

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