

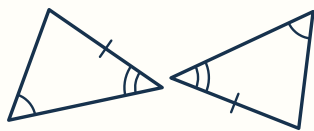
Geometry — Congruence rules

Name: _____

Date: _____

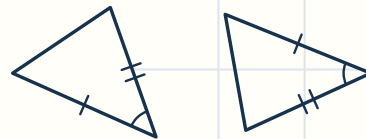
Which rule shows each pair of triangles is congruent?

1



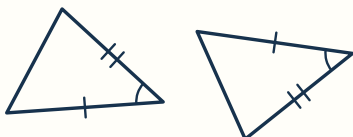
SSS SAS ASA **AAS** HL

2



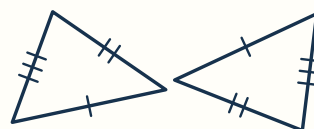
SSS SAS ASA AAS HL

3



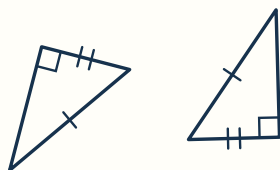
SSS SAS ASA AAS HL

4



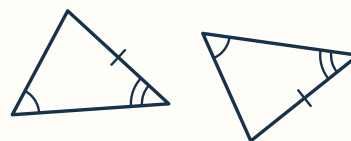
SSS SAS ASA AAS HL

5



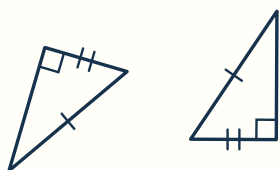
SSS SAS ASA AAS HL

6



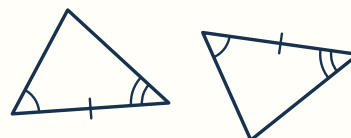
SSS SAS ASA AAS HL

7



SSS SAS ASA AAS HL

8



SSS SAS ASA AAS HL



Geometry — Triangle inequality

Name: _____

Date: _____

Can these three lengths form a triangle? Answer Yes or No.

1

_____ 4

_____ 9

_____ 12

Yes

No

2

_____ 11

_____ 14

_____ 16

Yes

No

3

_____ 3

_____ 6

_____ 9

Yes

No

4

_____ 6

_____ 7

_____ 15

Yes

No

5

_____ 7

_____ 10

_____ 15

Yes

No

6

_____ 5

_____ 11

_____ 16

Yes

No

7

_____ 3

_____ 9

_____ 13

Yes

No

8

_____ 4

_____ 12

_____ 12

Yes

No

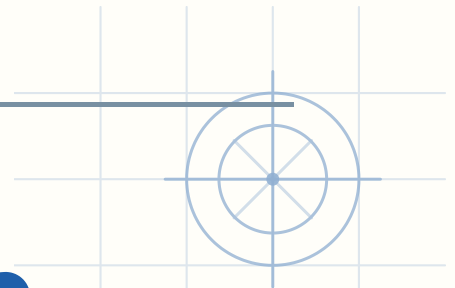


Midsegment — Half the third side

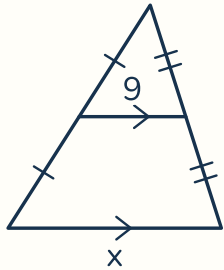
Name: _____

Date: _____

Find the length marked x. The dashes mark equal halves.

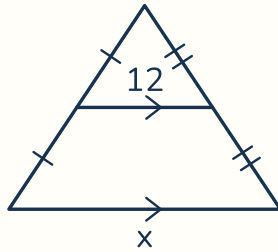


1



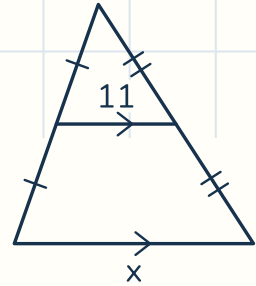
18 cm

2



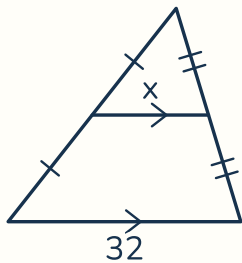
_____ cm

3



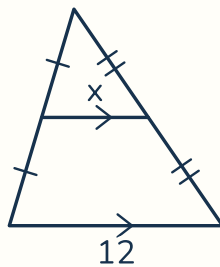
_____ cm

4



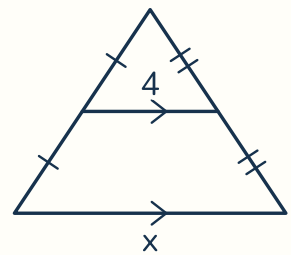
_____ cm

5



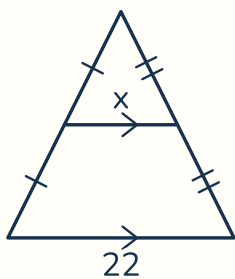
_____ cm

6



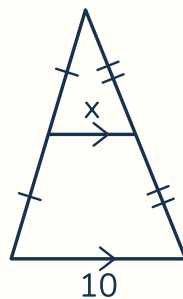
_____ cm

7



_____ cm

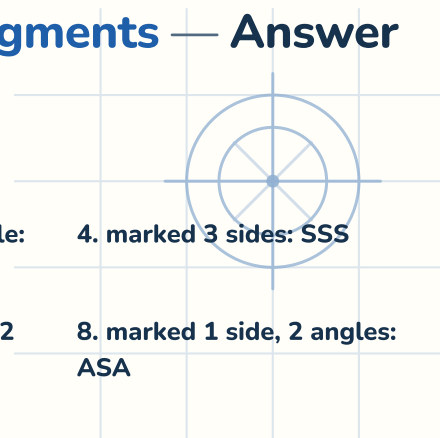
8



_____ cm



Power Pack · Congruence, inequality and midsegments — Answer key



Congruence rules

- | | | | |
|---|------------------------------------|---|------------------------------------|
| 1. marked 1 side, 2 angles:
AAS | 2. marked 2 sides, 1 angle:
SAS | 3. marked 2 sides, 1 angle:
SAS | 4. marked 3 sides: SSS |
| 5. marked a right angle, 2
sides: HL | 6. marked 1 side, 2 angles:
AAS | 7. marked a right angle, 2
sides: HL | 8. marked 1 side, 2 angles:
ASA |

Triangle inequality

- | | | | |
|-------------------|--------------------|-----------------|-------------------|
| 1. 4, 9, 12: Yes | 2. 11, 14, 16: Yes | 3. 3, 6, 9: No | 4. 6, 7, 15: No |
| 5. 7, 10, 15: Yes | 6. 5, 11, 16: No | 7. 3, 9, 13: No | 8. 4, 12, 12: Yes |

Midsegment

- | | | | |
|------------------------|-------------------------|-------------------------|-------------------|
| 1. midsegment 9: 18 cm | 2. midsegment 12: 24 cm | 3. midsegment 11: 22 cm | 4. base 32: 16 cm |
| 5. base 12: 6 cm | 6. midsegment 4: 8 cm | 7. base 22: 11 cm | 8. base 10: 5 cm |