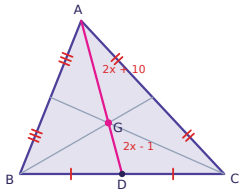
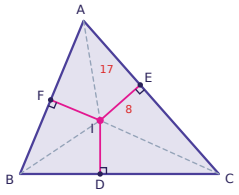
Task card 1 Centroid, Circumcenter & Incenter

G is the centroid of △ABC. AG = 2x + 10 and GD = 2x - 1. Find x.



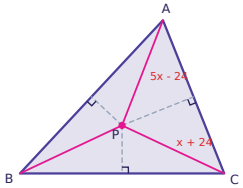
Task card 2 Centroid, Circumcenter & Incenter

I is the incenter of △ABC. IE = 8 and IA = 17. Find AE.



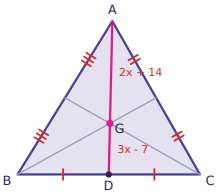
Task card 3 Centroid, Circumcenter & Incenter

P is the circumcenter of △ABC. PA = 5x - 24 and PC = x + 24. Find PB.



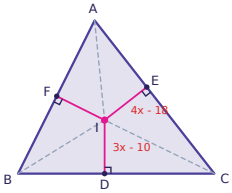
Task card 4 Centroid, Circumcenter & Incenter

G is the centroid of △ABC. AG = 2x + 14 and GD = 3x - 7. Find AD.



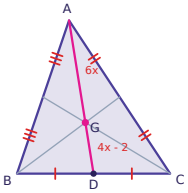
Task card 5 Centroid, Circumcenter & Incenter

I is the incenter of △ABC. ID = 3x - 10 and IE = 4x - 18. Find IF.



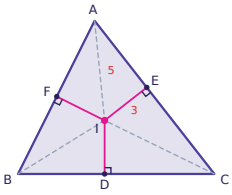
Task card 6 Centroid, Circumcenter & Incenter

G is the centroid of △ABC. AG = 6x and GD = 4x - 2. Find x.



Task card 7 Centroid, Circumcenter & Incenter

I is the incenter of △ABC. IE = 3 and IA = 5. Find AE.

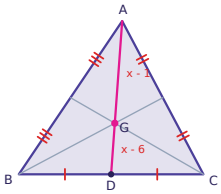


Task card 8 Centroid, Circumcenter & Incenter

Which point of concurrency is the same distance from all three vertices of a triangle: centroid, circumcenter, incenter, or orthocenter?

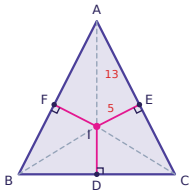
Task card 9 Centroid, Circumcenter & Incenter

G is the centroid of △ABC. AG = x - 1 and GD = x - 6. Find x.



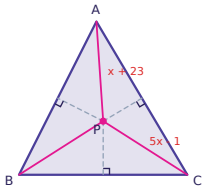
Task card 10 Centroid, Circumcenter & Incenter

I is the incenter of △ABC. IE = 5 and IA = 13. Find AE.



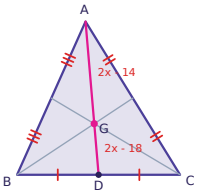
Task card 11 Centroid, Circumcenter & Incenter

P is the circumcenter of △ABC. PA = x + 23 and PC = 5x - 1. Find PB.



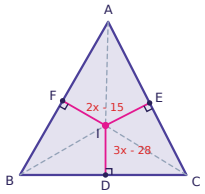
Task card 12 Centroid, Circumcenter & Incenter

G is the centroid of △ABC. AG = 2x - 14 and GD = 2x - 18. Find AD.



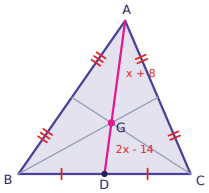
Task card 13 Centroid, Circumcenter & Incenter

I is the incenter of △ABC. ID = 3x - 28 and IE = 2x - 15. Find IF.



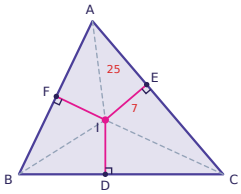
Task card 14 Centroid, Circumcenter & Incenter

G is the centroid of △ABC. AG = x + 8 and GD = 2x - 14. Find x.



Task card 15 Centroid, Circumcenter & Incenter

I is the incenter of △ABC. IE = 7 and IA = 25. Find AE.

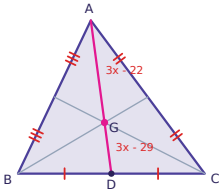


Task card 16 Centroid, Circumcenter & Incenter

The perpendicular bisectors of the sides of a triangle meet at which point: centroid, circumcenter, incenter, or orthocenter?

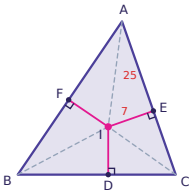
Task card 17 Centroid, Circumcenter & Incenter

G is the centroid of △ABC. AG = 3x - 22 and GD = 3x - 29. Find x.



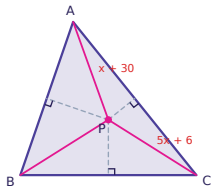
Task card 18 Centroid, Circumcenter & Incenter

I is the incenter of △ABC. IE = 7 and IA = 25. Find AE.



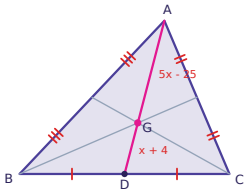
Task card 19 Centroid, Circumcenter & Incenter

P is the circumcenter of △ABC. PA = x + 30 and PC = 5x + 6. Find x.



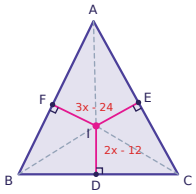
Task card 20 Centroid, Circumcenter & Incenter

G is the centroid of △ABC. AG = 5x - 25 and GD = x + 4. Find AD.



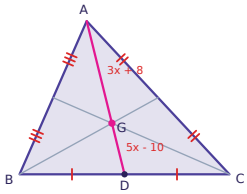
Task card 21 Centroid, Circumcenter & Incenter

I is the incenter of △ABC. ID = 2x - 12 and IE = 3x - 24. Find IF.



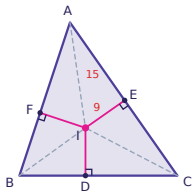
Task card 22 Centroid, Circumcenter & Incenter

G is the centroid of △ABC. AG = 3x + 8 and GD = 5x - 10. Find x.



Task card 23 Centroid, Circumcenter & Incenter

I is the incenter of △ABC. IE = 9 and IA = 15. Find AE.



Task card 24 Centroid, Circumcenter & Incenter

The medians of a triangle meet at which point: centroid, circumcenter, incenter, or orthocenter?

Centroid, Circumcenter & Incenter Task Cards

Recording sheet · Grade 10 · Use the property of the point of concurrency named in each problem.

Name: _____ Date: _____

Scan to check your answers

1	2	3	4
5	6	7	8
9	10	11	12
13	14	15	16
17	18	19	20
21	22	23	24

Centroid, Circumcenter & Incenter Task Cards: Answer Key

Grade 10 · Hard

The answers online

1. 6	**2.** 15	**3.** 36
4. 42	**5.** 14	**6.** 2
7. 4	**8.** circumcenter	**9.** 11
10. 12	**11.** 29	**12.** 12
13. 11	**14.** 12	**15.** 24
16. circumcenter	**17.** 12	**18.** 24
19. 6	**20.** 45	**21.** 12
22. 4	**23.** 12	**24.** centroid