Name: _____ Date: _____

Constructing Circumcircles Incircles - Medium

Each right triangle has the given legs and hypotenuse. Find the radius of its incircle: r = (a + b - c)/2.

1. legs 105, 36; hypotenuse 111
2. legs 32, 60; hypotenuse 68
3. legs 96, 28; hypotenuse 100
4. legs 8, 15; hypotenuse 17
5. legs 6, 8; hypotenuse 10
6. legs 27, 120; hypotenuse 123
7. legs 16, 30; hypotenuse 34
8. legs 48, 20; hypotenuse 52
9. legs 5, 12; hypotenuse 13
10. legs 36, 105; hypotenuse 111

Name: _____ Date: _____

Constructing Circumcircles Incircles - Medium

Each right triangle has the given legs and hypotenuse. Find the radius of its incircle: r = (a + b - c)/2.

11. legs 80, 84; hypotenuse 116

12. legs 45, 24; hypotenuse 51

13. legs 21, 72; hypotenuse 75

14. legs 24, 7; hypotenuse 25

15. legs 30, 16; hypotenuse 34

16. legs 20, 48; hypotenuse 52

17. legs 60, 63; hypotenuse 87

18. legs 120, 27; hypotenuse 123

19. legs 84, 80; hypotenuse 116

20. legs 24, 70; hypotenuse 74

Constructing Circumcircles Incircles - Medium - Answer Key

1. legs 105, 36; hypotenuse 111
   r = 15
2. legs 32, 60; hypotenuse 68
   r = 12
3. legs 96, 28; hypotenuse 100
   r = 12
4. legs 8, 15; hypotenuse 17
   r = 3
5. legs 6, 8; hypotenuse 10
   r = 2
6. legs 27, 120; hypotenuse 123
   r = 12
7. legs 16, 30; hypotenuse 34
   r = 6
8. legs 48, 20; hypotenuse 52
   r = 8
9. legs 5, 12; hypotenuse 13
   r = 2
10. legs 36, 105; hypotenuse 111
    r = 15

Constructing Circumcircles Incircles - Medium - Answer Key

11. legs 80, 84; hypotenuse 116
    r = 24

12. legs 45, 24; hypotenuse 51
    r = 9

13. legs 21, 72; hypotenuse 75
    r = 9

14. legs 24, 7; hypotenuse 25
    r = 3

15. legs 30, 16; hypotenuse 34
    r = 6

16. legs 20, 48; hypotenuse 52
    r = 8

17. legs 60, 63; hypotenuse 87
    r = 18

18. legs 120, 27; hypotenuse 123
    r = 12

19. legs 84, 80; hypotenuse 116
    r = 24

20. legs 24, 70; hypotenuse 74
    r = 10