4th Kyu Section 2: Application Test Answer Keys

1	(1)	3 : 4	
	(2)	In tank A 15	In tank B 20
2	(3)	640 m	
	(4)	25 minutes	
3	(5)	Vertex H	
	(6)	Side DE	
4	(7)	$x+17=5(x-15)$	
	(8)	23	
5	(9)	12	Exs
	(10)	38	Exs

Please fill in the box below.

Name	Examinee Number
Gender (Check the appropriate box) Male ☐ Female ☐	Age
Address	

/20	

The Mathematics Certification Institute of Japan

5	(11)	4 hours
6	(12)	16π cm^2
	(13)	The area is found by (area of the sector) − (area of the semicircle). $16\pi - \pi \times 4^2 \times \frac{1}{2}$ $= 16\pi - 8\pi$ $= 8\pi$ (Answer) 8π cm^2
7	(14)	△ AMD and △ BMC
	(15)	(a), (c) and (e)
	(16)	Two sides and the included angle of one triangle are equal to the corresponding parts of the second triangle. (SAS)
8	(17)	3 4
	(18)	$a =$ 1 | $h =$ 1 3
9	(19)	(−3 , 0)
	(20)	Since point A is the y-intercept of straight line ℓ, the coordinates of point A is (0, 6). So, we can express straight line m as $y = ax + 6$. This line passes through point C(2, 1). Hence, $1 = 2a + 6$ $a = -\frac{5}{2}$ (Answer) $y = -\frac{5}{2}x + 6$