

Practice Year 10 Maths -CAT Marking Schedule:Algebra

	At	Above	Beyond
Questions			
ONE			
a	12, 15		
b	64, 125		
c	26, 31		
d		n, (n+1)	
TWO			
a	15, 21, 28		
b			$R = \frac{p(p+1)}{2}$
c		$25 \times 26 / 2 = 325$	
THREE			
a	$y=3, m=\frac{1}{2}$ or $3/6$		
b		$y=\frac{1}{2}x+3$	
FOUR			
a	$11y + 8z$		
b	$16x^2 - 9w$		
c	$16f^8$		
d	n^4		
e	$6x^3$		
f		$2187k^{14}$ or $(21 K^{14}-AB5)$	
g		$-6p^8$	
h		$\frac{34y}{35}$	
FIVE			
a	$12x + 8$		
b	$3x - 26$		
c		$x^2 + 2x - 15$	
SIX			
a	$8(z-6)$		
b		$6x^3y^4(2x^2 - 5y^2)$	
c		$(x+5)(x+5)$ or $(x + 5)^2$	
d	$2(y^2 + 2y - 15)$		$2(y+5)(y-3)$
SEVEN			
a	$p=10$		
b	$x=3$		
c		$w=90$	
d		$x=-16/3$	
e		$w=-16$	
f		$x=-3$	
g	only one	$x=-3$ or -4 (both)	
h			$y= 70/31$
EIGHT			
a		$E=0.025S+10,000$	
b	$E=\$21,250$		
c		$\$550,000$	
d		$R=0.03S+6000$ $0.03S+6000=0.025S+10,000$	$0.005S=4000$ $S=\$800,000$

Trigonometry

	AT	ABOVE	BEYOND
Questions	5	5 opportunities.	1 opportunity.
ONE			
a	8.5		
b	4.9		
c	2.7		
TWO			
a	7.4 m		
b	11.2 m		
THREE			
a	18.8 cm	$y = 8 \tan 67 = 18.8 \text{ cm}$	
b	48.6	$y = \sin^{-1}(9/12) = 48.6$	
FOUR			
a		6.18 m	
b		14.0°	
FIVE			
a		$180 - \tan^{-1}(25/13)$ turn = $180 - 62.5$ $= 117.5$	
b			$90 - 62.5 = 27.5$ bearing = 028° 3 digits rounded to nearest whole number.

Marking annotation on script:

For Above and Beyond all answers must be backed by working.

Working Towards - W0 (blank),
 W1 (something on topic written),
 W2 (close to AT)
 AT - A3 (low),
 A4 (high)
 Above - AB 5 (low),
 AB6 (high)
 Beyond - B 7 (low),
 Beyond - B 8 (high)
CAO=A4 for any question.

Grade Summary

Grades	AT	AB	TAAB	Total
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N	24 (17+7)	21 (16+5)	4(3+1)	49
Points	96(68+28)	126 (96+30)	32 (24+8)	254 (188+66)

Percentage grade boundaries for overall grade:

Percentage	Points
At = 45%-65%	100 - 165
Above = 66%-84%	166 - 214
Beyond = +85%	215 -

Rubric Grade: [Percentage grade boundaries](#)

Grade	AT	AB	BE
Algebra	77-124	125-161	162-192
Trigonometry			