USING A CALCULATOR

Pearson Edexcel - Monday 12 November 2018 - Paper 3 (Calculator) Higher Tier

1.

1	(a)	7360	B1	cao	
	(b)	0.1077981356	B2	for 0.1077(981…)	Answer must be given to at least 4 decimal places rounded or truncated
			(B1	for 5.74(45626…) **or** 53.29 **or** 0.11 **or** 0.107 **or** 0.108)	Accept a clear indication of the decimal point. Check first four decimal places only

Pearson Edexcel - Monday 6 November 2017 - Paper 2 (Calculator) Higher Tier

2.

8	(a)		2.7560…	M1	for 1.0654(059…), 0.1402(633…), 7.5957(541…), 2.756 truncated or rounded to no less than 2dp
				A1	for 2.7560(….)
	(b)		2.76	B1	for 2.76 ft from (a)

Pearson Edexcel - Thursday 25 May 2017 - Paper 1 (Non-Calculator) Higher Tier

3.

15	(a)		3.5 to 4.5	M1	substitution into formula $\frac{1}{3}\pi r^2 h$ of chosen values for r and V (accept $r = 5.13$ and $V = 98$) and starts rearrangement e.g. multiplies by 3, divides by π or divides by r^2 (both sides)
				M1	uses estimates in calculation e.g. $\frac{3 \times 100}{3 \times 25}$ (or in rearranged formula) or $\frac{12}{\pi}$
				A1	arrives at a single value from estimate in the range 3.5 to 4.5
	(b)		more	C1	ft e.g. more since number in numerator goes up; numbers in denominator go down.

Pearson Edexcel - Monday 8 June 2015 - Paper 2 (Calculator) Higher Tier

4.

3	(a)		4.58006(9567)	2	M1 for 1.83 or 8.381(527307) or 4.6 or 4.58 or 4.580 or 4.5801 A1 for 4.58006(9567)
	(b)		4.5801	1	B1 ft provided at least 5 decimal places in (a)

Pearson Edexcel - Friday 13 June 2014 - Paper 2 (Calculator) Higher Tier

5.

3		2.064(285714…)	2	M1 for substitution of 0.7 into expression or 2.89 or 2.06 seen A1 for 2.064(285714…) or $\frac{289}{140}$

Pearson Edexcel - Friday 8 November 2013 - Paper 2 (Calculator) Higher Tier

6.

1	(a)		18.75	2	M1 for 84 **or** 4.48 **or** $\dfrac{112}{25}$ **or** 18.7 **or** 18.8 **or** 19 **or** 20 **or** $\dfrac{75}{4}$ A1 cao
	(b)		20	1	B1 for 20 **or** ft from their answer to (a) provided (a) is written to 2 or more significant figures

Pearson Edexcel - Monday 4 March 2013 - Paper 2 (Calculator) Higher Tier

7.

17		$\sqrt{\dfrac{2.73\ldots}{0.732\ldots}}$	1.931851...	2	M1 for 2.73... or 0.732...or 3.73...or 1.931 or 1.932 or 1.93 or $(1+\sqrt{3})$ or $(\sqrt{3}-1)$ or $(2+\sqrt{3})$ **or** 1.65... **or** 0.855... A1 for 1.9318(5...) SC: B1 for 2.5127(17...)

Pearson Edexcel - Thursday 8 November 2012 - Paper 2 (Calculator) Higher Tier

8.

1		$\dfrac{\sqrt{20.4}}{6.2\times0.48}=\dfrac{4.5166359}{2.976}$	1.5176(868)	2	B2 for 1.5176... (B1 for sight of 4.51(66359..) or 4.52 or 2.97(6) or 2.98 or 1.51 or 1.52 or 1.518 or 1.517 or 1.5177or $\dfrac{\sqrt{510}}{5}$)

Pearson Edexcel - Wednesday 13 June 2012 - Paper 2 (Calculator) Higher Tier

9.

2	(a)	$\dfrac{546.7}{12.5}=$	43.736	2	B2 for 43.736 (B1 for 546.7 or $\dfrac{5467}{10}$ or $\dfrac{5467}{125}$ or 12.5 or $\dfrac{25}{2}$ or 43.7 or 43.8 or 43.73 or 43.74 or 40 or 44)
	(b)		40	1	B1 for 40 **or** ft from their answer to (a) provided (a) is written to 2 or more significant figures

Pearson Edexcel - Monday 5 March 2012 - Paper 4 (Calculator) Higher Tier

10.

5	(a)	$\dfrac{\frac{\sqrt{6.25+3.75}}{2.2}}{\frac{\sqrt{10}}{2.2}}$	1.4373(98936...)	3	B3 for 1.4373(98936...) or 1.4374 (B2 for answer of $\dfrac{5\sqrt{10}}{11}$ or sight of $\sqrt{10}$ or 3.162...or 1.43 or 1.44 or 1.437) (B1 for sight of 2.2 or 10)
	(b)		1.44	1	B1 for 1.44 or ft from part(a) provided (a) is given to at least 3 decimal places.

Pearson Edexcel - Monday 14 November 2011 - Paper 4 (Calculator) Higher Tier

11.

1	(a)	4.636809….. ÷ 3.44	1.3479(09665…)	2	M1 for 4.63(6809…..)or 3.44 seen or $\frac{86}{25}$ A1 for 1.3479(09665…)
	(b)		1.35	1	B1 ft for 1.35

Pearson Edexcel - Friday 10 June 2011 - Paper 4 (Calculator) Higher Tier

12.

13	(a)	$\sqrt{\dfrac{920-364.5661765}{0.046}}$ $=\sqrt{12074.64834\ldots}$	109.88(47047)	2	B2 for 109.88(….. (B1 for 12074 seen …. or 555.43seen …or 109 to 110)
	(b)		110	1	B1 f.t. provided answer to (a) is more than 3 s.f.

Pearson Edexcel - Friday 12 November 2010 - Paper 4 (Calculator) Higher Tier

13.

9		2.42927(0474)	2	B2 for 2.42927 or better (B1 for 19.56 or 8.0518 seen or 2.43 or 2.429 or 2.4292 or 2.4293 or digits 242927… or $\dfrac{97800}{40259}$ seen)

Pearson Edexcel - Friday 11 June 2010 - Paper 4 (Calculator) Higher Tier

14.

6	(a)	$\dfrac{2}{3.95}$	0.5063(29113…)	2	B2 for 0.5063 or better. (B1 for 0.5 or 0.50 or 0.506 or 0.51 or 3.95 or the fraction $\dfrac{40}{79}$ seen)
	(b)		0.51	1	B1 ft for 0.51 from their answer to part (a) which is written to two or more decimal places.

Pearson Edexcel - Tuesday 10 November 2009 - Paper 4 (Calculator) Higher Tier

15.

2	(a)		28.38461538	2	B2 for 28.3846…. (B1 for 107.01 or 3.77 or 28.38(…) or $28\dfrac{5}{13}$ oe seen)
	(b)		30	1	B1ft for 30 or for answer >1sf in (a) rounded to 1 sf

OCR GSCE – Sample Papers – Paper 4 (Calculator) Higher Tier

16.

12	(a)	$\sqrt{20} = \sqrt{4 \times 5}$ $= \sqrt{4} \times \sqrt{5}$ $= 2\sqrt{5}$	**2** 2 AO1.3a	**M1** for $\sqrt{4} \times \sqrt{5}$	
	(b)	Either point which is 4 across and 2 up from A or 2 across and 4 up	**3** 1 AO2.3b 1 AO3.1a 1 AO3.2	**B1** for $a^2 + b^2 = 20$ **B1** for 4 and 16 (or 2 and 4) seen If zero scored **SC1** for correctly marking the position of *their a* and *b*	Condone both correct points marked

AQA GSCE – Thursday 8 November 2018 – Paper 2 (Calculator) Higher Tier

17.

	3.041...	M1	condone 3.042
11	3.14 – 3.041... = 0.09... or 3.041... + 0.1 = 3.141... or 3.041... and 3.14 – 0.1 = 3.04	A1	oe condone 3.042 for 3.041...

Additional Guidance	
Must see calculation for the A mark	
Do not allow use of a more precise value of π for the A mark	

AQA GSCE – Sample Paper 3 (Calculator) Higher Tier

18.

8(a)	375.112(1656)	B1	Condone if correctly rounded to 7 significant figures or better eg 375.1122
8(b)	20^2 or 400 or $\sqrt[3]{1000}$ or 10 or 5	M1	
	$400 - 10 \div 5 = 398$ or $400 - 2 = 398$	A1	