

Year 7 NAPLAN Numeracy Practice Test Solutions (Calculator Allowed)

About this resource:

Year 7 NAPLAN Numeracy Practice Test – Calculator Allowed. 32 questions, 40 minutes. This practice test follows the structure, question types and difficulty of the official NAPLAN Year 7 numeracy (calculator allowed) papers. Full worked solutions are provided in the accompanying solutions document.

About the author:

Ayman Ahsan – 4th Year Dental Student at La Trobe University



Ayman graduated VCE in 2021 with an ATAR of 98.10, achieving a 45 raw score in General Mathematics and 40+ raw all around. He is currently pursuing Dentistry at La Trobe University and **has been tutoring for 8+ years**. He is known for his kind and patient nature and ability to create a learning environment where students feel confident to ask questions and improve.

Q	Answer	How to work it out
1	A (\$769.50)	$\$4617 \div 6 = \$769.50$ for each laptop.
2	B (3 418 000)	$5\,221\,000 - 1\,803\,000 = 3\,418\,000$ people.
3	C (2744)	14^3 means $14 \times 14 \times 14 = 2744$. Option D is 14^2 and option A is 14×5 .
4	B (35)	$87.5 \div 2.5 = 35$ coasters.
5	D (a hexagonal prism)	A hexagonal prism has 6 rectangular sides plus 2 hexagonal ends = 8 faces. A cube has 6, a triangular prism 5 and a square pyramid 5.
6	B (4)	$9 \times 5 = 45$ eggs are needed. $45 \div 12 = 3.75$, so 3 cartons is not enough and Kim must buy 4.
7	B (4.26)	$98.4 - 18.4 = 80$, and $340.8 \div 80 = 4.26$.
8	C (11 °C)	The reading rose from -6°C to 5°C , so the rise is $5 - (-6) = 11^\circ\text{C}$.
9	C (30)	$3 \div 6 = 0.5$ of an hour, and $0.5 \times 60 = 30$ minutes.
10	B (\$36 400)	$\$54\,600 \div 12 = \$4550$ each month, and $\$4550 \times 8 = \$36\,400$.

Q	Answer	How to work it out
11	C (4 856.25 square centimetres)	Area = length $\times$ width = $92.5 \times 52.5 = 4856.25 \text{ cm}^2$. Option A adds the two sides instead.
12	D (1440°)	One full rotation is 360° , so $4 \times 360^\circ = 1440^\circ$.
13	A (0.23 cm)	There are 365 days in a year, so $84 \div 365 \approx 0.23$ centimetres per day.
14	B (60)	8 am to 6 pm is 10 hours, and the store opens 6 days a week: $10 \times 6 = 60$ hours.
15	A (0.735)	Time = distance $\div$ speed = $250 \div 340 \approx 0.735$ seconds.
16	\$12	Try numbers of \$1 coins: $4 \times 9 = 36$ g, leaving $62.4 - 36 = 26.4$ g, and $26.4 \div 6.6 = 4$ exactly. So there are four \$1 coins and four \$2 coins, worth $\$4 + \$8 = \$12$.
17	B (Shop B)	Sale prices: A $\$40 - 25\% = \$30$; B $\$36 - \frac{1}{3} = \$24$; C $\$50 - 30\% = \$35$; D $\$32 - \$6 = \$26$. Shop B is cheapest.
18	C (4)	There are $12 + 8 + 3 + 1 = 24$ symbols altogether, so each symbol stands for $96 \div 24 = 4$ members.
19	B (60°)	The angles of a quadrilateral add to 360° , so the missing angle is $360 - 70 - 115 - 115 = 60^\circ$.
20	A ((21, 2))	The pattern repeats every 6 units. The low points are at $x = 3, 9, 15, 21, \dots$ and all have $y = 2$, so (21, 2) is the next low point.
21	150	The hour hand turns $360^\circ \div 12 = 30^\circ$ for each hour mark. From 2 o'clock to 7 o'clock is 5 hours, so it turns $5 \times 30^\circ = 150^\circ$.
22	B (south-east, then right)	Junction Creek is south-east of Bellview, so Tom travels south-east. Marden is south-west of Junction Creek, and turning from south-east to south-west is a right turn.
23	12	Let Nina be n . Ali is $n/2 + 3$ and Kim is $n/2 - 2$. Then $n + (n/2 + 3) + (n/2 - 2) = 57$, so $2n + 1 = 57$ and $n = 28$. Ali is 17 and Kim is 12.
24	C (\$260)	25% of $\$800 = \$200$ in 2021. The rest is $\$800 - \$340 - \$200 = \$260$ in 2022.
25	C (greater than 40%)	The number of green counters has not changed but the total is one smaller, so the chance of drawing green is now a little greater than 40%.
26	35	Numbers leaving 5 from groups of 6 are 35, 41, 47, ... The first that also leaves 3 from groups of 4 is 35, because $35 = 4 \times 8 + 3$, and 35 is more than 30.
27	B (\$3.00)	Each large smoothie is worth 1.5 small ones, so the order costs $3 \times 1.5 + 3 = 7.5$ small smoothies. $\$22.50 \div 7.5 = \$3.00$.

Q	Answer	How to work it out
28	D ($\angle RTZ$ and $\angle RVX$)	$\angle RTZ$ and $\angle RVX$ are corresponding angles on parallel lines, so they are equal. Each of the other pairs adds to 180° rather than being equal.
29	B (336 cm^3)	Cutting 3 cm from both ends leaves a base of $(20 - 6) \times (14 - 6) = 14 \times 8 = 112 \text{ cm}^2$. The height is 3 cm, so the volume is $112 \times 3 = 336 \text{ cm}^3$.
30	5	The rolls that total 8 are 2 + 6, 3 + 5, 4 + 4, 5 + 3 and 6 + 2. Because the dice are different sizes, 2 + 6 and 6 + 2 count separately, giving 5 ways.
31	30	If the whole pipe is L cm long, then $L/3 - L/4 = 10$, so $L/12 = 10$ and $L = 120$ cm. A short piece is $120 \div 4 = 30$ cm.
32	1200	The parallel sides are 35 cm and 65 cm and the perpendicular height is 24 cm. Area = $\frac{1}{2} \times (35 + 65) \times 24 = 50 \times 24 = 1200 \text{ cm}^2$