

Rounding & Estimating: Medium Practice Paper 3 Answers

Q#	Answer	Explanation
1	B	38 rounds to 40 and 22 rounds to 20. $40 \times 20 = 800$. (The exact answer is 836, but the estimate is 800.)
2	C	68 rounds up to 70 (units digit $8 \geq 5$). $70 \times 4 = 280$ miles. (The exact distance is 272 miles, but the estimate is 280.)
3	D	297 rounds up to 300 (tens digit $9 \geq 5$). $300 \times 4 = 1,200$. (The exact answer is 1,188, but the estimate is 1,200.)
4	C	4.8 rounds to 5 and 9.2 rounds to 9. $5 \times 9 = 45$. (The exact answer is 44.16, but the estimate is 45.)
5	C	312 rounds to 300 (1 s.f.) and 48 rounds to 50 (1 s.f.). $300 \times 50 = 15,000$. (The exact total is 14,976.)
6	B	5,280 rounds to 5,000 (1 s.f.) and 48 rounds to 50 (1 s.f.). $5,000 \div 50 = 100$. (The exact answer is 110.)
7	C	289 rounds to 300 and 2.8 rounds to 3. Average speed $\approx 300 \div 3 = 100$ km/h. (The exact speed is about 103 km/h.)
8	C	7.95 rounds to 8 and 8.1 rounds to 8. $8 \times 8 = 64$. (The exact answer is 64.395, but the estimate is 64.)
9	C	19 rounds up to 20 (units digit $9 \geq 5$). $52 \times 20 = 1,040$ weeks. (The exact answer is 988, but the estimate using rounded 19 is 1,040.)
10	C	The nearest perfect square to 48 is 49 (since $6^2 = 36$ and $7^2 = 49$). Since 48 is very close to 49, $\sqrt{48} \approx \sqrt{49} = 7$. (The exact value is 6.93.)
11	C	1,980 rounds to 2,000 (1 s.f.) and 48 rounds to 50 (1 s.f.). $2,000 \div 50 = 40$ minutes. (The exact time is 41.25 minutes.)

12	C	0.49 rounds to 0.5 (1 s.f., since the first significant figure is 4 and the next digit $9 \geq 5$). $0.5 \times 20 = 10$. (The exact answer is 9.8.)
13	B	3.14 rounds to 3 (1 s.f.). Area $\approx 3 \times 5^2 = 3 \times 25 = 75 \text{ cm}^2$. (The exact area using 3.14 is 78.5 cm^2 , but the estimate is 75.)
14	B	352: the first significant figure is 3, and the next digit is 5 (≥ 5), so it rounds up to 400. The others round to 300 (349) or 500 (450, 451, 500).
15	A	$48 \approx 50$ and $53 \approx 50$. $50 \times 50 = 2,500$. Since 2,544 is very close to 2,500, the calculation is likely correct.