

WORKSHEET

Approximation using Binomial Expansion

Unsolved with Answer key



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Approximation using Binomial Expansion

- Q 1. Approximate $(1 + 0.03)^7$ using binomial expansion.
- Q 2. Use binomial expansion to approximate $(1 - 0.04)^3$.
- Q 3. Approximate $\sqrt{1.05}$ using the binomial series.
- Q 4. Use binomial expansion to approximate $(2.02)^6$.
- Q 5. Approximate $(0.99)^4$ using binomial expansion.
- Q 6. Approximate $(1 + 0.005)^{10}$.
- Q 7. Use binomial expansion to approximate $\frac{1}{\sqrt{1 - 0.01}}$.
- Q 8. Approximate $(0.97)^8$ using binomial expansion.

Answer Key

Approximation using Binomial Expansion

1. $(1 + 0.03)^7 \approx 1.21$
2. $(1 - 0.04)^3 \approx 0.88$
3. $\sqrt{1.05} \approx 1.025$
4. $(2.02)^6 \approx 64.38$
5. $(0.99)^4 \approx 0.96$
6. $(1 + 0.005)^{10} \approx 1.05$
7. $\frac{1}{\sqrt{1 - 0.01}} \approx 1.005$
8. $(0.97)^8 \approx 0.82$