

Present Value Formula

The diagram shows the formula $P = A(1 + \frac{r}{n})^{-n \cdot t}$ with arrows pointing from empty boxes to its components: P (purple box), A (blue box), r (red box), n (orange box), and t (green box). Below the formula, two boxes describe the compounding frequency: "Compounded Annually; Compounded Semiannually;" (purple box) and "Compounded Quarterly; Compounded Monthly;" (orange box).

$$P = A(1 + \frac{r}{n})^{-n \cdot t}$$

Compounded Annually;
Compounded Semiannually;

Compounded Quarterly;
Compounded Monthly;

Present Value Formula

The diagram shows the formula $P = Ae^{-r \cdot t}$ with arrows pointing from empty boxes to its components: P (purple box), A (blue box), r (red box), and t (green box).

$$P = Ae^{-r \cdot t}$$

$$P = A\left(1 + \frac{r}{n}\right)^{-n \cdot t} \quad \text{Present Value Formula} \quad P = Ae^{-r \cdot t}$$

A special bank bond can be redeemed in 20 years for \$5,000. How much should you pay for it now, if you want a return of...

9% compounding monthly ?

6% compounding continuously ?

$$P = A\left(1 + \frac{r}{n}\right)^{-n \cdot t} \quad \text{Present Value Formula} \quad P = Ae^{-r \cdot t}$$

An investment projects it can be cashed out in 8 years for \$12,000. How much should you pay for it now, if you want a return of...

10% compounding quarterly ?

10% compounding continuously ?

Present Value Formula

Compounding Interest

$$P = A \left(1 + \frac{r}{n} \right)^{-n \cdot t}$$

Continuously
Compounding Interest

$$P = A e^{-r \cdot t}$$