

Example 1

Mr. Borrower wishes to purchase a home valued at \$350,000. He has \$87,500 as a down payment, leaving a required mortgage in the amount of \$262,500. You have determined that his monthly mortgage payment will be \$1,679.50. This is not a condominium and therefore there is no maintenance fee. Mr. Borrower has an annual income of \$77,500 and pays \$3,100 per year in property taxes. What is Mr. Borrower's GDS?

Solution

Diagram illustrating the calculation of GDS for Mr. Borrower:

- Callout 1: Annual Property Taxes
- Callout 2: Monthly mortgage payment x 12 = the annual mortgage payment
- Callout 3: Monthly heat x 12 = the annual heating payment

$$\begin{aligned} \text{GDS} &= [(\text{PITH}) / \text{Gross Income}] \times 100 \\ \text{GDS} &= [((\$1,679.50 \times 12) + (\$100 \times 12) + \$3,100) / \$77,500] \times 100 \\ \text{GDS} &= [(\$20,154 + \$1,200 + 3,100) / \$77,500] \times 100 \\ \text{GDS} &= (\$24,454 / \$77,500) \times 100 \\ \text{GDS} &= 3.15535484\text{E-}1 \times 100 \\ \text{GDS} &= 0.315535484 \times 100 \\ \text{GDS} &= 31.55\% \end{aligned}$$

Therefore Mr. Borrower's GDS is 31.55%.

In this case Mr. Borrower's GDS is within the acceptable industry standard of 39%, meaning that his GDS will qualify with most lenders.

Ms. House owns a condominium unit valued at \$200,000 that has a mortgage with an outstanding balance of \$120,000. She would like to refinance this mortgage, increasing it to \$145,000. Ms. House has informed you that the monthly condominium maintenance fee is \$350, and her property taxes are \$1,900 per year while she has a monthly income of \$5,000. Based on your calculations you have determined that her monthly mortgage payment based on this proposed mortgage will be \$927.72. What is her GDS?

Solution

Diagram illustrating the calculation of GDS for Ms. House:

- Callout: 1/2 of the condo maintenance fee

$$\begin{aligned} \text{GDS} &= [(\text{PITH} + \frac{1}{2} \text{ Condo Maintenance fee}) / \text{Gross Income}] \times 100 \\ \text{GDS} &= [((\$927.72 \times 12) + (\$100 \times 12) + (.50 \times \$350 \times 12) + \$1,900) / (\$5,000 \times 12)] \times 100 \end{aligned}$$

$$\begin{aligned} \text{GDS} &= [(\$11,132.64 + \$1,200 + \$2,100 + \$1,900) / \$60,000] \times 100 \\ \text{GDS} &= (\$16,332.64 / \$60,000) \times 100 \\ \text{GDS} &= 2.72210667\text{E-}1 \times 100 \\ \text{GDS} &= 0.272210667 \times 100 \\ \text{GDS} &= 27.22\% \end{aligned}$$